

TYRONE TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

MASTER PLAN

MASTER PLAN Tyrone Township Livingston County, Michigan

November 2012

Prepared with the assistance of:

McKENNA ASSOCIATES, INC.

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RESOLUTION #130201
TYRONE TOWNSHIP, LIVINGSTON COUNTY

RESOLUTION TO ADOPT THE MASTER PLAN

WHEREAS, Tyrone Township has enacted an ordinance to confirm the establishment under the Michigan Planning Enabling Act, Public Act 33 of 2008, MCL 125.3801, et seq., of the Tyrone Township Planning Commission and to provide for the composition of that planning commission; to provide for the powers, duties and limitations of that planning commission; and to repeal any ordinance or parts of ordinances or resolutions in conflict with this ordinance; and

WHEREAS, under the authority of the Michigan Planning Enabling Act, Public Act 33 of 2008, MCL 125.3801 et seq., and other applicable planning statutes, the Tyrone Township Planning Commission shall create and periodically review and amend a master plan as a guide for development within the township's planning jurisdiction; and

WHEREAS, the Tyrone Township Board Of Trustees desires to review and have final approval of or reject the master plan developed by the Tyrone Township Planning Commission; and.

NOW, THEREFORE, BE IT RESOLVED, The Tyrone Township Board of Trustees formally approves the master plan developed by the Tyrone Township Planning Commission.

A vote on the foregoing resolution was taken and was as follows:

RESOLVED BY: Trustee Gonzalez **SUPPORTED BY:** Clerk Kremer

VOTE: Cunningham, yes; Kremer, yes; Bunting-Smith, yes; Gonzalez, yes; Pedersen, yes; Schultz, yes; Walker, yes.

ADOPTION DATE: February 19, 2013

CERTIFICATION OF THE CLERK

I, the undersigned, the duly qualified and acting Clerk of Tyrone Township, Livingston County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Tyrone Township Board of Trustees, the original of which is on file in my office, and that such meeting was conducted and public notice thereof was given pursuant to and in compliance with the Open Meetings Act, Act. No. 267, Michigan Public Acts of 1976, as amended, and that minutes of such meeting were kept and are available as required by such Act.

Keith L. Kremer Tyrone Township Clerk



TYRONE TOWNSHIP LIVINGSTON COUNTY, MICHIGAN TYRONE TOWNSHIP MASTER PLAN

RESOLUTION of ADOPTION

WHEREAS the Michigan Planning Enabling Act (P.A. 33 of 2008), as amended, provides for a township planning commission to prepare and adopt a Master Plan for physical development of the community; and

WHEREAS the Tyrone Township Planning Commission has prepared such a Master Plan for the Township's physical development in compliance with the Michigan Planning Enabling Act, including relevant charts, maps and text; and

WHEREAS the Tyrone Township Planning Commission has provided multiple opportunities for public participation in the planning process; and

WHEREAS the Tyrone Township Board approved the draft Plan for distribution, and subsequently the Master Plan was so distributed for review by surrounding communities and other public agencies as required by the Michigan Planning Enabling Act; and

WHEREAS the Tyrone Township Planning Commission held a formal public hearing on the draft Master Plan on November 13, 2012 in order to provide additional opportunity for public comment; and

WHEREAS all comments received during the planning process have been carefully considered and the Planning Commission is satisfied that the Master Plan is ready for adoption.

NOW THEREFORE BE IT RESOLVED that the Tyrone Township Planning Commission hereby adopts the Tyrone Township Master Plan, as presented at the public hearing held on November 13, 2012, subject to incorporation of the following revisions:

- Change "Country Store" designation to a footnote on the future land use map per McKenna memo of 11/12/12, and revise tables and maps per memo to incorporate this change.
- 2. For the North West section, include language to clarify land use transitions are planned for Bennett Lake Road and old US- 23 (pages 101, 106).
- 3. Specifically list the existing extractive use (Fenton Sand and Gravel), and state the future use is master planned to be reclaimed single family residential (Page 112).
- 4. For blank pages throughout the document add the following text to those pages "This page intentionally left blank".

BE IT FURTHER RESOLVED that the Tyrone Township Planning Commission directs the Commission Chairman and Commission Secretary to sign this Resolution signifying the adoption of the Tyrone Township Master Plan, to file an attested copy with the Township Clerk, and to request that the Master Plan, as revised, be placed on the next available agenda of the Township Board for consideration and adoption consistent with the Michigan Planning Enabling Act.

Motion by Cam Gonzalez, seconded by Steve Hasbrouck, to adopt the Resolution as presented.

AYES: Gonzalez, Hasbrouck, Lee, Meisel, Puckett.

NAYS: None

ABSENT: Peabody, Wood

Resolution Declared Adopted by majority vote

ADOPTED: November 13, 2012

Mark Meisel, Chairperson

Tyrone Township Planning Commission

Deborah Lee, Secretary

Tyrone Township Planning Commission

ACKNOWLEDGMENTS

The participation and cooperation of community leaders and residents in the preparation of the Tyrone Township Master Plan is greatly appreciated. The efforts of the following individuals were particularly important:

Tyrone Township Planning Commission

Mark Meisel, Chairman
Steven Hasbrouck, Township Board Liaison
Debra Lee, Secretary
Cam Gonzalez
Brandon Peabody
Ron Puckett
Mike Wood

David Hanoute, Former Chairman Ed Kempisty, Former Commissioner

Tyrone Township Board

Mike Cunningham, Supervisor Keith Kremer, Clerk Marna Bunting-Smith, Treasurer Cam Gonzalez, Trustee Soren Pedersen, Trustee Charles Schultz, Trustee David Walker, Trustee

David Kurtz, Former Treasurer Colleen Ameel, Former Trustee Steven Hasbrouck, Former Trustee Jim Kolhoff, Former Trustee Don Peitz, Former Trustee

Planning and Zoning Administrator

Vanessa Bader

Planning Consultant

McKenna Associates, Inc.

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Master Plan Tyrone Township Livingston County, Michigan

November 2012



INTRODUCTION

The land use decisions that Tyrone Township makes over the next several years will have a fundamental impact on the character and quality of life in the Township. The Township is located at the edge of development in southeast Michigan. Development pressures will increase as more people are attracted to Tyrone's rolling hills, attractive vistas and rural character.

Residents of the Township have long been concerned about maintaining the rural character of Tyrone. This plan is intended to protect and preserve those qualities on which residents place such great value, while recognizing that growth will create needs that must be addressed.

LEGAL BASIS FOR THE MASTER PLAN

The Michigan Planning Enabling Act (P.A. 33 of 2008, as amended) expressly authorizes cities, villages, and townships to engage in planning and zoning. The Act states that the Planning Commission's efforts at planning shall take place via formulation of a master plan.

"The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:

- (a) Is coordinated, adjusted, harmonious, efficient, and economical.
- (b) Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.
- (c) Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare." (M.C.L. 125.3807)

The Act is very specific about what the plan must include:

"Includes, among other things, promotion of or adequate provision for 1 or more of the following:

- (i) A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians, and other legal users.
- (ii) Safety from fire and other dangers.
- (iii) Light and air.
- (iv) Healthful and convenient distribution of population.
- (v) Good civic design and arrangement and wise and efficient expenditure of public funds.
- (vi) Public utilities such as sewage disposal and water supply and other public improvements.

(vii) Recreation.

(viii) The use of resources in accordance with their character and adaptability." (M.C.L 125.3807)

"(2) A master plan shall also include those of the following subjects that reasonably can be considered as pertinent to the future development of the planning jurisdiction:

(a) A land use plan that consists in part of a classification and allocation of land for agriculture, residences, commerce, industry, recreation, ways and grounds, subject to subsection (5), public transportation facilities, public buildings, schools, soil conservation, forests, woodlots, open space, wildlife refuges, and other uses and purposes. If a county has not adopted a zoning ordinance under former 1943 PA 183 or the Michigan zoning enabling act, 2006 PA 110, MCL 125.3101 to 125.3702, a land use plan and program for the county may be a general plan with a generalized future land use map." (M.C.L 125.3833)

The Act also requires the Planning Commission to "make careful and comprehensive surveys and studies of present conditions and future growth of the municipality."



OVERVIEW

Tyrone Township consists of approximately 36 square miles of land in the northeast corner of Livingston County. The Township borders Genesee County and Fenton to the north, Rose Township in Oakland County to the east, Hartland Township to the south, and Deerfield Township to the west. Tyrone is approximately 25 miles north of Ann Arbor and the University of Michigan, and about 15 miles south of Flint. Kettering University and a campus of the University of Michigan are located in Flint. Lansing and Michigan State University are about 45 miles to the west, and Detroit is southeast about 55 miles.

Tyrone is defined by its unique blend of rural character and an agrarian past, with a relatively modern transportation network and close proximity to major urbanized areas. U.S. 23, a divided, limited access highway, runs north-south through the Township, linking the cities of Flint and Ann Arbor. This highway is the primary linkage for the community. Interstate 96, which runs east-west between Detroit and Lansing, is located about 12 miles south of the Township. Approximately 10 miles north of the Township, U.S. 23 merges with Interstate 75, which connects Flint and Detroit.



Tyrone's attractive rural features and easy access have made the Township a popular "bedroom community" for residents who are willing to exchange a longer daily commute for the attractive rural amenities that come with living in Tyrone. The landscape of the community consists of rolling hills, country roads, woodlands, wetlands, creeks and lakes, much of which remains in an unaltered state. Low density single family dwellings are found throughout, with more intensive development located in the northeast part of the Township, near the city of Fenton.

Because of the same features that make the Township desirable for those who live there, development pressures have become a major issue with the residents of Tyrone. While the 2010 Census data shows that Tyrone has a relatively modest population of 10,020, this number represents an increase of 18.4% from 2000. The Southeast Michigan Council of Governments (SEMCOG) estimates that in 2035 the Township's population will be 13,546, an increase of 35.2% percent.

The implications for future land use are that more of Tyrone's land area will be consumed by residents, and ultimately businesses and industry. The community adopted a Parks and Recreation Plan in 1999 that included, among other things, provision for the creation of a greenways plan that will designate areas as open space.

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McKenna Tyrone Township, Livingston County, Michigan Flint -Fenton Tyrone Township 23 Pontiac (59) Brighton **Ann Arbor** Tyrone Township Map 1 **Regional Location** Base Map Source: McKenna Associates 4/16/2012 4 Mi.

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HISTORY

The history of Tyrone is rooted in agriculture. The Township was first settled in 1834 when three men – George Dibble, George Cornell and William Dawson – acquired land in the area. They were followed over the next two years by nearly 150 settlers, who purchased most of Tyrone's available land.

The first school was opened by 1838, and the first church in the Township was erected in 1844. Postal services were in operation by 1852. Tyrone became a township in 1887.

As in most of Livingston County in the 1800s, agriculture and industry associated with agriculture, dominated the economy. The Township's major agricultural products included hay, grains, sheep, dairy cattle, horses and apples.

Due to this agricultural focus, Tyrone Township developed with large, dispersed lots, and has had few concentrated settlement areas. Haller's Corners, Parshallville, Hill Top Orchards and the original Town Hall site (Tyrone Center) are areas that once showed signs of developing as community centers. None of those centers ever matured as an urban place with a local government. To the present day, development in Tyrone Township continues to be dispersed, and the community has no "downtown" or central area.

Many of the Township's early residents originated from upstate New York. In fact, various town names found in the State of New York were considered as the Township's name when the name of Tyrone was selected. According to Township historic records, the name was suggested by Jonathan L. Wolverton. Several early settlers in the area originated from County Tyrone in Ireland.

Over the past 40 years, residential development has mostly taken place in the northern third of Township around lakes such as Runyan, Marl, Sullivan and Stearns, and along the major arterial roads. As a result, the character of this portion of the Township has changed from rural to large-lot suburban.



Although still mostly rural in its character, the emphasis on agriculture has dwindled for Tyrone Township. Today, the Township has become a rural, residential home for many commuters who work in the more urbanized areas.

OPEN SPACE/RURAL CHARACTER

The most distinguishing characteristics of Tyrone are its uniquely attractive open space and rural character, all in a location that is an easy commute from metropolitan centers like Flint, Ann Arbor, Oakland County, and Detroit and an even easier drive from the walkable charm of Fenton and Linden and the retail amenities in Hartland. The topography consists of rolling hills and open meadows along quiet country roads that create a picturesque quality. Much of Tyrone's residential development consists of 5 and 10-acre lots with housing in the front, and natural woodlands comprising much of the rear of the properties. The open meadows, woodlands, and wetlands give Tyrone a simple, natural beauty.

Residents realize the importance of preserving Tyrone's finest attribute, and indeed many, if not most, located in the Township for this very reason. At the community visioning session conducted in October 2011, the participants strongly supported preservation of the rural character of Tyrone Township, a conclusion that was also supported in the Township's recent resident survey. Creating greenway linkages, trails, and passive recreational opportunities are goals of this Plan.

One manner in which Tyrone has implemented open space preservation principles is through its zoning ordinance. For every 2 acres of lot area created in the Farming Residential and Rural Estate Residential districts, 1 acre of open space must be set aside. In R-1 and R-2 Single Family Residential districts, 1 acre of open space must be created for every 4 acres of lot area created. The newly designated areas are prohibited from development for any



use other than open space. The Ordinance defines open space as "Historic building sites or historic sites, parks and parkway areas, ornamental parks such as botanical gardens, extensive areas with tree cover, wetlands, lowlands along streams, and other natural features worthy of scenic preservation." Open space may also include private recreational facilities such as a golf course, buffer areas adjacent to public streets, and storm water detention areas that are usually dry except during and immediately following storm events.

U.S. 23 CORRIDOR

The U.S. 23 corridor is a critical transportation link in the State of Michigan and in the Great Lakes Region, moving goods between Michigan and Ohio. In Southeastern Michigan, U.S. 23 serves to connect the urban areas of Ann Arbor and Flint. As the urbanized area of Southeastern Michigan has grown, U.S. 23 has taken on the function of an external loop around the western side of the most heavily developed part of the region.

U.S. 23 is the most important roadway in Tyrone Township, providing the community with connections for the journey to work, consumer resources, and entertainment. According to 2009 traffic counts from the Michigan Department of Transportation (MDOT), the highway

carries approximately 46,000 vehicles through Tyrone on an average day. This is down from about 50,000 vehicles from SEMCOG's 2000 estimates. Of course, on heavily traveled holidays and other high-volume days, the traffic volumes are higher.

Tyrone Township recognizes the importance of U.S. 23 in the daily lives of Tyrone's residents. The freeway gives Township important external connections. However, the freeway also brings noise, air pollutants, visual intrusions and traffic safety concerns into the community. Indeed, as with many important resources, the Tyrone Planning Commission recognizes the need to carefully plan for the best utilization of the U.S. 23 corridor so that



the freeway will continue to serve the needs of the Township's residents and businesses.

CITY OF FENTON INFLUENCE

The city of Fenton consists of approximately 11,800 people and is located in the southernmost portion of Genesee County, ending at the border of Tyrone. Serving as somewhat of a bedroom community to Flint and Oakland County, Fenton is characterized by slow and steady growth, good schools, a main street district, and intense economic development surrounding the U.S. 23 Corridor.

While Fenton is not located in the Township, it has had a profound effect on its development pattern. Existing land use maps indicate that the majority of intense housing development has occurred in the northern one-third of Tyrone, primarily in the direct vicinity of Fenton. These



residents' children attend Fenton's quality schools. Reasons for this pull toward the city include the provision of services such as fire protection and the proximity to Fenton shopping and retail opportunities. Several "big box" retailers such as K-Mart, Home Depot, Target, TSC, VG's, and Walmart along U.S. 23 in Fenton have become major draws for Tyrone residents. The city is also home to several destination eating establishments, including the French Laundry, the Fenton Winery and Brewery, and the Fenton Hotel. Tyrone residents frequently attend festivals and events in Fenton, such as the Freedom Festival, Jinglefest, and the annual downtown Trick-or-Treat.

CITY OF LINDEN INFLUENCE

The City of Linden consists of approximately 3,991 people, and is located approximately 5 miles northwest of Fenton, in Genesee County. Linden is characterized by slow and steady growth, quality schools, a main street district, and a centralized historic area of old town shops and small businesses.

While Linden is not located in the Township, the northwestern portion of Tyrone Township is within the Linden school district and those residents' children attend Linden's quality schools. This exposes a significant population of Tyrone residents to the Linden shopping opportunities, which includes small businesses, fast food restaurants, convenience stores, dental and doctors' offices, veterinary centers, and a hardware store. These residents may therefore find it more convenient to visit the Linden stores and may develop shopping loyalties, which may impact the business opportunities for similar stores if they were located in Tyrone Township.

HARTLAND TOWNSHIP INFLUENCE

Hartland Township, Livingston County, consists of approximately 14,663 people, and is located at the southern border of Tyrone Township. Hartland characterized by steady growth, quality schools, and a major shopping district centered at the U.S. 23 interchange, which grew significantly during the 2000-2010 decade. Tyrone residents located in the southern portion of the township are within the Hartland school district and those residents' children attend Hartland's quality schools. Hartland is also a partner with Tyrone in the Livingston Regional Sewer System.

Hartland Township will likely have a profound effect on Tyrone's future development pattern. Hartland has fire protection services located close to the Tyrone border, has a good school system, and provides convenient shopping and retail opportunities. Big box retailers such as Kroger, Meijer,



Target, and Walmart, as well as numerous fast food restaurants and strip malls near the U.S. 23/M-59 interchange have become major draws for Tyrone residents. Hartland also has a popular farmer's market. The close proximity of these services combined with the fact many Tyrone residents commute past this area each day may limit business opportunities, which could locate in Tyrone.

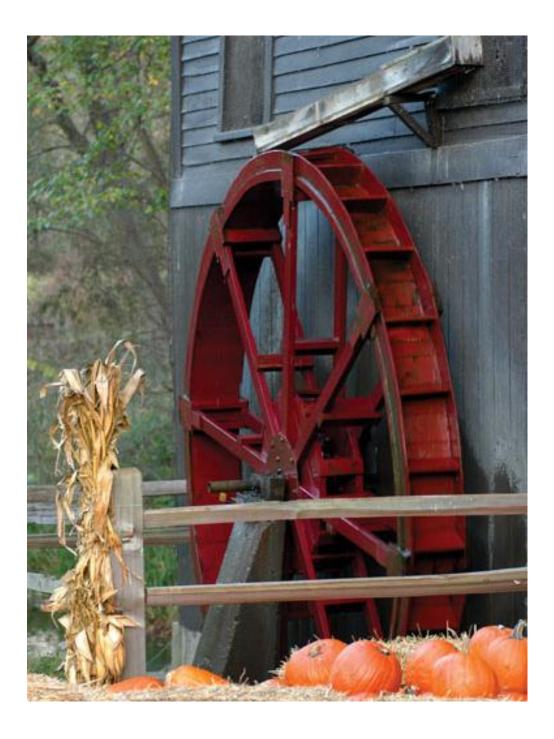
The Hartland village area also serves as an asset for Tyrone, especially the historic Music Hall.

PARSHALLVILLE SETTLEMENT INFLUENCE

Located in the southwest part of Tyrone and the northwest portion of Hartland Township, the Parshallville community began to develop in the mid-1800's. By 1880, this rural community had a post office, general store, and other shops and businesses. In the 1900's and extending until today, Parshallville's strength has been its ability to maintain its rural and pastoral look and feel through historic preservation and a resistance to modern development pressures.

The community has been able to capitalize on its New England- style small town charm and turn it into an economic development opportunity by drawing in weekend tourists. Highlights

include a Tom Walker's Grist Mill and scenic views of the pond. Currently, there is interest among Parshallville residents to preserve the history of the Settlement. The community's charm and proximity to Lake Shannon, which is located in the southwest portion of Tyrone, have attracted residents to the Township. Land use maps show that Lake Shannon is completely surrounded by residential development. This development has created a second small population center in the otherwise dispersed Tyrone Township.



Social Characteristics and Housing Analysis



POPULATION

The 2010 U.S. Census reported that Tyrone had 10,020 residents, an increase of 18.4% from 1990. Table 1 is a comparison of historic population data between Tyrone and Livingston County that dates from 1960. The data shows that during the last decade, Tyrone exceeded the County's growth rate of 15.3%.

Table 1: Populations Trends, Tyrone Township and Livingston County, 1960 to 2010

Tyrone Township					Livingston County			
Year	Total	Numeric Change	Percent Change	Persons per sq. mile	Total	Numeric Change	Percent Change	Persons per sq. mile
1960	1,523			42.3	38,223			66.4
1970	3,437	1,914	125.7%	95.5	58,967	20,744	54.3%	102.4
1980	6,077	2,640	76.8%	168.8	100,289	41,322	70.1%	174.1
1990	6,854	777	12.8%	190.4	115,645	15,356	15.3%	200.8
2000	8,459	1,605	23.4%	235.0	156,951	41,306	35.7%	272.5
2010	10,020	1,561	18.4%	278.3	180,967	24,016	15.3%	309.3

Source: U.S. Census

Tyrone witnessed its largest percentage increase between 1960 and 1970, when the Township more than doubled in population from 1,523 to 3,437. The largest numeric increase occurred in the following decade between 1970 and 1980, growing by 2,640 people to 6,077 residents. During the 1970s, the county also experienced high growth, recording its largest percent increase as well as its largest numeric increase.

The decade between 1980 and 1990 was a slow period of growth for Tyrone. The Township population increased approximately 13%, the slowest rate for the 50-year period. This was also true for the county, which experienced a 15% increase in population during the decade. Despite the slow economy of the 2000s, the Township grew by almost as many people during the 2000-2010 decade as it did during the 1990s.

The population density of Tyrone has increased over the last 50 years at a slightly lower rate than the county. Figure 1 shows persons per square mile in Tyrone increased from 235.0 to 278.3 in the last decade. This is less than the county's increase during the same time period which went from a density of 272.5 to 309.3 persons per square mile in 2010.

A comparison with nearby communities shows that Tyrone's growth in the last decade was at a greater rate than most, with the exception of Hartland Township. The City of Fenton increased 11.1% from 10,582 to 11,756. Deerfield Township grew just 2% from 4,087 to 4,170. Rose Township of Oakland County grew by only 40 people from 6,210 to 6,250. In contrast, Hartland Township grew by 33.6% from 10,496 to 14,663.

The most recent projections from the Southeast Michigan Council of Governments (SEMCOG) indicate an expected increase in Tyrone's population to 13,546 by 2035. This represents roughly a 30% increase in population from the 2000 Census reports. This would be a much slower rate of growth than experienced during the 25-year period from 1985 and 2010.

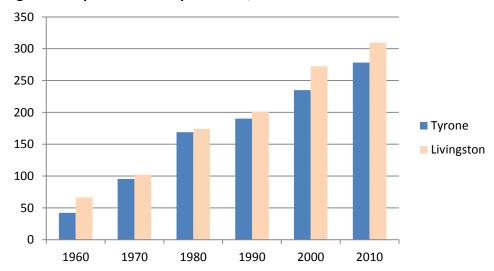


Figure 1: Population Per Square Mile, 1960-2010

Source: U.S. Census Bureau

Resident Age and Sex

Table 2 displays the age distribution in Tyrone by percentage in comparison to the County and State populations. From this data, service demands can be estimated. The population age ranges are grouped together so that we may estimate the types of services that are most obvious for each group. For example, where a substantially larger share of the local population is found in a particular group as compared to State and County population data, the Planning Commission and Township Board can estimate certain special services that might be necessary for that group.

The Township has fewer people in the family forming years in comparison to the state and county populations. Additionally, the Township has a significantly larger part of the resident population in mature families. Slightly less than one-third of the Township's residents are less than 20 years old, generally consistent with the countywide data in this age group. However, the higher concentration of mature families suggests that there will be a lower birth rate in the Township compared to other communities.

Table 2: Age Distribution Comparison, Selected Jurisdictions

Age Group	Tyrone Township	% of Tyrone	Livingston County	% of County	State of Michigan	% of State
Under 5 years <i>Pre-School</i>	510	5.1%	9,824	5.5%	596,286	6.0%
5 to 19 Public School	2,395	23.9%	40,648	22.5%	2,052.599	20.7%
20 to 44 Family Forming	2,534	25.3%	51,727	28.5%	3,111,195	31.5%
45 to 64 Mature Families	3,382	33.7%	57,024	31.5%	2,147,230	21.7%
65 and over <i>Retirement</i>	1,199	11.9%	21,644	11.9%	1,361,530	13.7%
Total	10,020	100.0%	180,967	100.0%	9,883,640	100.0%
Median age	42.4	_	40.9	_	38.9	_

Source: U.S. Census Bureau, 2010 Census

The most significant increase was in the 45 to 64 age group, which increased by 37% from 2,476 to 3,382, and in the 65 and over group, which grew 82.2%, from 658 to 1,199 people. In comparison, 5 to 19 age group gained just 13.8%. The 20 to 44 age group lost population - down 6%, from 2,688 to 2,534 - as did the Under 5 group, which fell 4% from 533 to 510.

Part of the population loss among the "family forming" age group is a lack of college students and very recent college graduates. Just 4.2% of Tyrone's population is age 20-24, which is lower than all of the comparison communities except Hartland Township (which is also 4.2%). 6.8% of the State of Michigan's population is 20-24 years old.

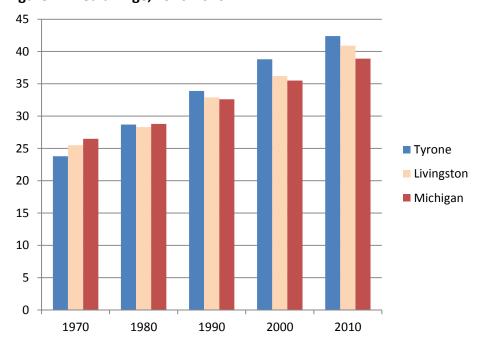
The Township's median age increased by 3.6 years from 2000 to 2010. This continues a trend – the median age in Tyrone has increased steadily and significantly since 1970. While the county and state have also increased in median age, Tyrone's increase has been more pronounced. In 1970, Tyrone's median age was nearly 2 years less than the county's and roughly 3 years less than the state's. In 1980, all three geographic regions had very similar median ages. By 2010, however, Tyrone's median age was 1.5 years greater than the county median, and 3.5 years greater than the state's.

Table 3: Median Age Comparison in Years, Selected Jurisdictions

Year	Tyrone Township	Livingston County	State of Michigan
1970	23.8	25.5	26.5
1980	28.7	28.3	28.8
1990	33.9	32.9	32.6
2000	38.8	36.2	35.5
2010	42.4	40.9	38.9

Source: U.S. Census Bureau

Figure 2: Median Age, 1970-2010



Source: U.S. Census Bureau

The 2010 Census age data for Tyrone was compared with the county, state, and nearby municipalities including Hartland, Fenton, Deerfield, and Rose Townships, and the City of Fenton. The results reveal that Tyrone is relatively similar to the surrounding townships and the county, and relatively dissimilar to the state.

Tyrone has a median age of 42.4 years. The highest median age in the communities studied was Rose Township, at 44.9. Hartland was the youngest at 39.3 years of age.

Tyrone's median age is higher in part because the community attracts people who are established in their careers and can afford to live in the natural beauty of the Township while commuting to the larger communities that surround it.

The age data also suggests:

- The Township population will likely not have as large a demand for new schools, day-care centers, playgrounds and similar children-oriented facilities as compared to other communities.
- There may be a higher demand for adult "creature comfort" facilities such as standard restaurants, golf courses, open space and trails.

Livingston County and the Township are very similar with regard to the proportional split in males and females. As a proportion of the population, slightly more men live in Tyrone and in the county overall. Conversely, the proportion of women as a percent of the population is greater in the state than in the Township. However, the difference is so small that it is statistically insignificant.

Table 4: Sex Distribution in Selected Jurisdictions

Jurisdiction	Male	% Male	Female	% Female
Tyrone Township	5,063	50.5%	4,957	49.5%
Livingston County	90,527	50.0%	90,440	50.0%
State of Michigan	4,848,114	49.1%	5,035,526	50.9%

Source: U.S. Census Bureau, 2010 Census

Table 5 shows the breakdown by race for Tyrone, Livingston County, and the state of Michigan. Tyrone and the county are similar in their homogeneity. Tyrone is 96.4% White, while Livingston County is 98.7% White. Michigan overall is more diverse, with 78.9% of the population being White, and 14.2% African American. The state also has a higher percentage of American Indians, Asians, Native Hawaiians and Pacific Islanders, and Hispanics or Latinos than either the County or Township.

Table 5: Race Distribution by Percent of Total Population in Selected Jurisdictions

Race	Tyrone	Livingston	State of
	Township	County	Michigan
White	96.4	98.7	78.9
Black or African American	0.5	0.4	14.2
American Indian and Alaska Native	0.4	0.4	0.6
Asian	0.7	0.8	2.4
Native Hawaiian and Other Pacific Islander	0.0	0.0	0.0
Some other race	0.4	0.4	2.3

Source: U.S. Census Bureau, 2010 Census

Hispanics and Latinos are not included in the Table 5 because the U.S. Census records this data separately. The percentages of Hispanics and Latinos in the State, County, and Township are 4.4%, 1.9%, and 2.2%, respectively. The racial compositions of the communities surrounding Tyrone are highly reflective of the Township and Livingston County. The City of Fenton is 95.1% White. Hartland, Deerfield, and Rose townships are 97%, 99%, and 96% White, respectively.

HOUSING

Table 6 shows the number of households in Tyrone at the time of each census since 1970. The number of households has increased in each decade displayed. This is not surprising, given the population growth the Township has witnessed over the past 50 years. The highest percentage and numeric growth in households was from 1970 to 1980. This mirrors the population growth trends of this time period.

Table 6: Households in Tyrone Township
1970 to 2010

Year	Households	% Change
1970	897	
1980	1,756	95.8%
1990	2,211	25.9%
2000	2,882	30.3%
2010	3,528	22.4%

Source: U.S. Census Bureau

Decreasing household size has been a national trend for several decades. Table 7 compares the average household size in Tyrone, Livingston County, and the state of Michigan.



Table 7: Average Household Size 1980 to 2010

	Tyrone Township		Livingston County		State of Michigan	
Year	Household Size	Change	Household Size	Change	Household Size	Change
1980	3.46		2.84		3.39	
1990	3.10	-10.4%	2.84	0.0%	2.94	-13.3%
2000	2.93	-5.5%	2.80	-1.4%	2.56	-12.9%
2010	2.84	-3.1%	2.67	-4.6%	2.49	-2.7%

Source: U.S. Census Bureau

Tyrone's average household size was significantly larger than the state and county averages in 1970, and remains that way to this day. The gap closed during the 1990s, but expanded again during the 2000s Household size has declined across all three jurisdictions, reflecting national trends that have continued for 50 years.

Table 8: Housing Occupancy by Percent for Selected Jurisdictions

	Michigan	Livingston County	Tyrone Twp.	Fenton City	Fenton Twp.	Hartland Twp.	Deerfield Twp.	Rose Twp.
Occupied housing units	85.4	92.5	93.6	90.0	90.8	94.7	90.0	91.4
Vacant housing units	14.6	7.5	6.4	9.1	9.1	5.3	10.0	8.6
Seasonal, recreational, or occasional	5.8	2.5	2.7	0.5	3.6	1.7	4.9	4.2
Homeowner vacancy	2.7	2.0	1.7	3.9	7.4	1.8	2.1	1.6
Rental vacancy	11.5	9.4	9.4	8.5	11.5	6.4	3.7	8.4

Source: U.S. Census Bureau, 2010 Census

Tyrone has a total of 3,780 housing units, with 3,528 occupied and 242 vacant. Table 8 compares housing occupancy data for Tyrone, the state of Michigan, Livingston County, the City of Fenton, and Fenton, Hartland, Deerfield, and Rose Townships. The state of Michigan has a higher percentage of seasonal housing than any community in Table 8. Tyrone's percentage of seasonal housing is slightly less than half the state average. Deerfield has the highest percentage of any township at 4.9%. Tyrone's rental vacancy rate of 9.4% is below the state average of 11.5%. The value for Tyrone could be subject to intense fluctuation from year to year due to the extremely low amount of total rental units in the township.

100%
80%
60%
40%
20%
Tyrone Livingston Michigan

Figure 3: Owner vs. Renter Occupancy by Percent of All Occupied Housing Units

Source: U.S. Census Bureau, 2010 Census

Tyrone has 3,528 occupied housing units, of which 3,202 are owner occupied and 326 are renter occupied units. Table 9 displays owner occupancy percentages and household size for comparison units of government. Tyrone has the highest rate of owner occupancy of any comparison community at 90.8%. Fenton, Hartland, Deerfield, and Rose townships are all very close behind in owner occupancy, as all four have a minimum of 87.4% owner occupancy. The state value is 72.1%. Only the City of Fenton has a lower value, at 59.0%.

Table 9: Owner Occupancy and Household Size by Percent for Selected Jurisdictions

	Michigan	Livingston County	Tyrone Twp.	Fenton City	Fenton Twp.	Hartland Twp.	Deerfield Twp.	Rose Twp.
Owner occupied units	72.1%	85.3%	90.8%	59.0%	89.7%	87.4%	93.0%	92.9%
Renter occupied units Average	27.9%	14.7%	9.2%	41.0%	10.3%	12.6%	7.0%	7.1%
persons per household: (owner occupied) Average	2.57	2.73	2.8	2.49	2.60	2.91	2.82	2.72
persons per household: (renter occupied)	2.29	2.29	3.18	1.95	2.50	2.39	2.79	2.91

Source: U.S. Census Bureau, 2010 Census



The average household size for an owner occupied unit in Tyrone is 2.80. Hartland, Deerfield and Rose townships all have similar values that fall between 2.72 and 2.91. The City of Fenton and Fenton Township have values that are more representative of the state's value of 2.57.

The average household size of renter occupied units is traditionally a lesser value than for owner occupied units. In Tyrone, there is an average of 3.18 people in each renter occupied unit in the Township, which is the opposite of the usual trend and significantly higher than the county and state average of 2.29. The comparison townships all follow the prevailing trend of renter households containing fewer persons on average than owner-occupied households.

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Economic Analysis



INTRODUCTION

One purpose of the Master Plan is to review and project opportunities for employment, tax base, shopping, and income-producing ventures for residents. Another purpose is to accommodate desired economic growth that will serve the needs of the residents of the community in appropriate locations. To achieve these purposes, it is first necessary to become knowledgeable about the income levels and employment characteristics of residents, and to gain an understanding of business and industrial development patterns that exist in and around the community.

This component of the Master Plan is intended to provide information relative to the Tyrone Township economic base. Income and employment characteristics of the Township and the composition of the labor force are examined first, and conclusions are drawn concerning future opportunities for residents within the Township and in the immediate area.

The second portion of this section of the Master Plan examines business and industrial growth patterns. Implications are discussed concerning the magnitude, location, and future direction of growth in the commercial, office, industrial, and similar sectors of the local economy. The third major element deals with the fiscal impact of various types of expected growth.

INCOME

The level of income in a community relative to its surroundings is a measure of economic health and vitality. From a public sector perspective, an affluent community will have a strong tax base and will be able to provide quality services for its residents. From a market perspective, retail and service firms make location decisions based on growth and expendable income. On the reverse

Table 10: Income, 2009

	Median Household Income (\$)	Per Capita Income (\$)
Tyrone Twp.	84,863	34,908
Livingston	74,210	32,297
Michigan	48,700	25,172

Source: U.S. Census American Community Survey 2009

end, a predominantly low-income community will have to make difficult decisions with respect to cutbacks on government services, and will often find it hard to attract retail businesses. Table 10 shows Tyrone's income relative to the state and county's.

With a median household income of over \$84,000 in 2009, Tyrone Township residents were, on average, considerably wealthier than the median in the county and almost twice as wealthy as residents statewide, and therefore Tyrone is a relatively affluent community. The surrounding jurisdictions of Hartland and Deerfield townships, and the city of Fenton had 2009 median income values of \$82,646, \$66,420 and \$52,519 respectively.

LABOR FORCE

Resident occupation gives a clear indication of the types of jobs in which people in the community currently are engaged. The 2009 American Community Survey is the most recent benchmark for reporting these characteristics. Table 11 reports labor force information for Tyrone, Livingston County and the state of Michigan. In 2009, Tyrone had 5,370 residents in the labor force, and Livingston County reported 99,026.

Occupational data has shown a shift in the national economy from an industrial economy to a service and information economy, a shift that has been accelerated by the economic decline of the past few years. Nevertheless, manufacturing remains the largest employment category for Township residents, employing 20.7% of Tyrone's work force. The education and health care category is catching up fast, comprising 20.0% of the work force, and SEMCOG anticipates that it will exceed the manufacturing sector soon. This transition has already occurred at the County and State levels.

Other large employment sectors for Township residents include retail trade, finance/insurance/real estate, and professional/scientific/management services. Along with education and health care, these are the fields that will turn the economy around and help it grow in the future, a good sign for the Township.

Table 11: Composition of Labor Force 2009

	Tyrone Twp.	Livingston Co.	Michigan
Agriculture, Forestry,			
Fishing, Hunting, and	0.9%	0.5%	1.2%
Mining.	0.570	0.370	1.270
Construction	6.6%	7.2%	5.6%
Manufacturing	20.7%	19.3%	18.3%
Wholesale Trade	3.6%	3.8%	2.9%
Retail Trade	9.5%	11.5%	11.6%
Transportation and Utilities	2.7%	3.4%	4.2%
Information	1.0%	1.8%	1.9%
Finance, Insurance, and	10.3%	6.7%	5.7%
Real Estate	10.570	0.7/0	3.7/0
Professional, Scientific, and	10.3%	10.9%	8.8%
Management	10.576	10.570	8.870
Education and Health Care	20.0%	19.5%	22.4%
Arts, Entertainment, and	6.00/	0.20/	0.00/
Recreation	6.9%	8.2%	9.0%
Other Services	4.3%	4.5%	4.7%
Public Administration	3.0%	2.8%	3.7%
Source: U.S. Census American Comm	unity Survey 2009		

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UNEMPLOYMENT

Figure 4 shows unemployment patterns for the last decade. Residents of Livingston County have experienced unemployment rates that have been consistently lower than the state average. A decade ago, the national unemployment rate was higher than both the state and the county. However, the state of Michigan's economy was hit particularly hard by the "Great Recession", which began in 2008, and Livingston County has been part of that economic downturn.

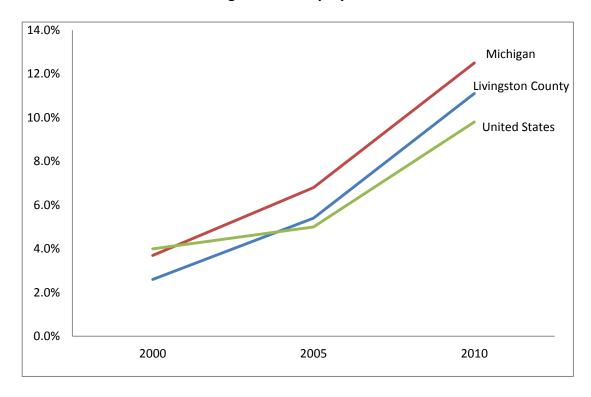


Figure 4: Unemployment

Source: U.S. Bureau of Labor Statistics

PROJECTED EMPLOYMENT

Employment data identifies the types of jobs existing within the jurisdiction. Trends can be assessed by comparing current data with past data, and by comparing current data with projections. There are some difficulties in using Census data as a benchmark, because the Bureau of Labor Statistics (BLS) groups high-skilled, high-wage earners with relatively low-skilled, low-wage earners under many of their categories. The Service Sector, for example, includes workers in the health care and legal professions with those in hotels, repair services, and amusement and recreation services. Also, workers in highly technical fields employed by a manufacturing company are usually classified by the BLS in the Manufacturing Sector. While recognizing the shortcomings of the data, the figures do give a rough measure of employment transitions. Still, the 2010 Census data gives the best snapshot of employment in the community.

SEMCOG's Small Area Forecast 2035 provides employment projections. These numbers are not as accurate as an actual survey, but do reflect best estimates and the impacts of general trends that are expected to occur in the region, down to the level of individual communities and counties. The SEMCOG projections do not include agricultural employment. Because SEMCOG and the Census do not use the same methodology, comparisons between the 2010 data and the projection can be difficult, but the trends are still worth noting.

Table 12: Non-Farm Employment Projections

	2010 Jobs (Census)		2035 Jobs (SEMCOG)
Industrial Class	Tyrone Township	Livingston County	Tyrone Township	Livingston County
Natural Resources and Mining	28	548	2	125
Manufacturing/Construction	422	13,033	19	8,705
Transportation, Communications and Utilities	18	1,558	18	1,672
Wholesale Trade	28	2,080	13	1,631
Retail Trade	59	8,159	33	7,131
Services	100	9,966	74	9,154
Others	280	19,389	365	18,586
Total Jobs	935	54,763	524	47,004

Sources: U.S. Census Bureau 2010 Census and SEMCOG Small Area Forecast 2035

Table 12 reveals several important phenomena that are noteworthy for Tyrone and Livingston County. First, it is significant that Tyrone's total non-farm employment number of 935 is roughly 16.3% that of its total labor force, meaning that a large majority of Tyrone residents commute elsewhere for their jobs or work in agriculture. This characterizes Tyrone as a "bedroom community", one that is residentially based and has little economic activity occurring within it.

By contrast, the county's employment number is roughly 45% that of its labor force. However, Tyrone's non-farm employment is expected to grow by over 200% to 524 in 2035.

There are several important trends to note with respect to the future of Tyrone's economy. Manufacturing is expected decline in the region and nationwide. Also following the national trend, the largest employment growth in Tyrone will come in the service industries and transportation, and utilities communication, sectors. Additionally, many Tyrone residents will likely choose to telecommute or work from home. The Township's natural beauty will not change and will continue to be attractive, but with



transportation costs rising, many people will prefer not to commute into the larger cities.

TAX BASE ANALYSIS

A review of property values will provide an indication of economic growth or decline. As shown in the following table, Tyrone has experienced substantial growth in total state equalized value of property in the last six years. The total State Equalized Value (SEV) in Tyrone Township decreased 14.6% between 2005 and 2010.

Table 13: State Equalized Value (\$)

	Tyrone	% Change	Livingston	% Change
2005	535,752,892		8,771,873,031	
2006	545,125,700	1.7%	9,287,698,101	5.8%
2007	567,180,500	4.0%	9,717,535,109	4.6%
2008	563,987,900	-0.5%	9,218,363,193	-5.1%
2009	494,915,300	-12.2%	8,444,732,082	-8.3%
2010	457,337,600	-7.5%	7,545,443,242	-10.6%
Total % Change		-14.6%		-13.9%

Source: Livingston County Equalization Department

Table 14: 2010 SEV by Use (\$)

	SEV	% of Total
Real Property		
Residential	385,788,188	91.3%
Commercial & Industrial	14,357,465	3.3%
Agricultural	4,699,945	1.1%
Personal Property	17,145,283	4.1%
Total	422,337,600	

Source: Livingston County Equalization Department

Tyrone's decrease in property values over the past 6 years is largely a reflection of the collapse of housing values, a national phenomenon, which began in 2008. The housing market has slowly begun to recover, as shown by the smaller decrease in SEV in 2009-2010 than 2008-2009. The Township's tax base has also been impacted by devaluation of commercial, industrial and agricultural uses, as well as personal property.

The SEV's are highly reflective of a rural bedroom community. Ninety-one percent of Tyrone's total property value is derived from residential land use. Compared to the total land area zoned for residential uses in Tyrone, residents share a disproportionally high percentage of the total tax burden. This is a result of several factors. The first is the lack of commercial and industrial businesses in Tyrone. Such uses (particularly commercial) often receive a high valuation relative to the amount of land used, and contribute greatly to a jurisdiction's tax base. The lack of business enterprise also results in a low sum of personal property. Second, agricultural uses are appraised at a much lower value than the other three primary land uses. As a result, residential property comprises the lion's share of appraised land value in Tyrone.

As a rule of thumb, residential properties are more expensive for municipalities to service than they provide in revenue, while commercial, industrial, and agricultural properties provide more revenue than the cost to provide services to them. The net result is that to some extent, residential properties create a burden on a community's budget. On the other hand, commercial, and industrial properties add value to a community's tax base, and thus provide additional income to provide better services and implement capital improvement programs.

The annual Township budget is formulated to respond to needs for public services with the available revenue generated by personal and real property tax as the controlling factor. There is a strong relationship between the amount of State Equalized Valuation and available financial resources generated by that SEV. The actual amount of revenue generated by SEV is dependent upon the amount of millage the voters have approved or as authorized by the State, and the taxable value of the property being taxed. It is important to note that the taxable value could be substantially different than the SEV due to State regulations. Table 15 displays the revenues for Tyrone from 2005 to 2011.

Table 15: Township Revenues (\$)

Year	Property Taxes	State Revenue Sharing	Fees, License, etc.	Other, incl. Interest	Total
2005	354,691	568,311	255,776	27,754	1,216,532
2006	380,945	580,651	263,587	33,944	1,259,127
2007	393,901	580,794	303,192	33,988	1,311,875
2008	401,870	573,815	338,022	50,501	1,364,208
2009	421,135	586,982	324,540	56,009	1,388,666
2010	406,196	508,511	337,952	36,119	1,288,778
2011	365,341	560,212	387,136	59,545	1,372,234
Change	0.2%	-1.4%	51.4%	114%	12.7%

Source: Tyrone Township, 2011

Over the time period indicated in Tables 13 and 15, Tyrone's SEV decreased by nearly 15%, and its tax revenue has fluctuated. However, overall Township revenues have increased 12.7%, just higher that the inflation rate of 10.7%. Among other factors, the increase can be attributed to fees that are better indexed to cover the full costs of Township services and an increase in interest revenue.

U.S. 23 CORRIDOR

It is anticipated that the U.S. 23 Corridor will witness increased development pressures from the commercial and industrial sectors over the next several decades. This is a result of highly marketable locational attributes, a growing population, available sanitary sewer, and Tyrone's status as a relatively affluent community. It is important to the residents of Tyrone to manage growth in a manner that is orderly and does not compromise the character of the Township. As a result, in November 1999, the U.S. 23 Corridor Plan was developed as a supplement to the Master Plan. It designated land for nonresidential uses, including Planned Services, Planned Office, Planned Commercial Services, Technology, Research and Office, and Industrial. The Corridor Plan was intended to target development to the U.S. 23 Corridor as an area of significant tax base for Tyrone. Many recommendations of that Plan continue to be reflected in this Master Plan update, and can be utilized by the Township to support capital improvements in the corridor area.

RETAIL AND OFFICE ANALYSIS

Introduction

Retail and office development in Tyrone has been affected by three key parameters:

• **The Market.** Commercial development is directly related to population, household growth, average household income, and competition. This differs from industrial development, which is closely related to growth of industry in the region, and the ability of a given jurisdiction to accommodate that growth.

- Land Use Policies. Tyrone's U.S. Corridor Plan sets forth a relatively straightforward
 pattern for non-residential development. It is directed to the vicinity of the White Lake
 and Center Road interchanges and on the west side of U.S. 23. However, the Township's
 zoning map designates much of this land for Residential, Rural Estate, or Farming
 Residential.
- Residents' Preferences. Residents' preferences continue to shape land use policies. Both the October 2011 visioning session held as part of this Master Plan update, and the earlier Township-wide survey, revealed results consistent with previous public input, that is, that residents place a higher value on preservation of rural open space than widespread development. Residents clearly understand the need for some nonresidential development and tax base, but want that development carefully located and controlled so as to not negatively impact the rural character of Tyrone.

The U.S. 23 Corridor Plan reflected the desire of residents at that time for commercial development that serves primarily the residents of the community, rather than a regional market. This view, consistent with residents' overriding goal to preserve the rural open space character of the community, has changed somewhat over the intervening years so that residents today have a greater receptivity to varied development.

Development pressures are inevitable in the Township, and land use control mechanisms that promote managed, orderly growth are appropriate based on resident preferences. Based on public input during this 2012 Master Plan update, residents are most concerned that retail and office development be well-planned, attractively designed and in character with the Township.

Efficient use of commercial land will be mandatory to achieve residents' desire to limit development yet satisfy the need for a variety of goods and services. Residents' opinions and needs, along with the market evaluation that follows, provide the basis for a solid plan for the commercial sector in Tyrone Township.

Existing Commercial Facilities

Just a handful of commercial facilities exist in Tyrone. The majority of these sell convenience goods, such as gasoline and items commonly associated with convenience stores. Convenience goods are those that are consumed or used on a daily basis, such as groceries and drugs. Small grocery stores, convenience markets, auto parts and repair establishments, and restaurants are examples of convenience goods businesses.

There are several businesses in the Township that market comparison or "shopping" goods, such as clothing, appliances, sporting goods, furniture and similar items. Comparison goods are purchased less frequently and only after people have compared prices and quality of competing stores.



Determining Commercial Development Potential

Projection of commercial development potential in Tyrone Township is a five-step process:

- Delineate the potential trade area. The potential trade area is the geographic area from which the sustaining patronage for shopping facilities is obtained. The boundaries are determined by several factors, including the nature of the commercial facilities, accessibility, physical barriers, location of competing shopping centers, and limitations of driving time and distance.
- 2. Determine the trade area sales potential.
- 3. Determine local allocation of total sales. The purpose of this step is to determine what portion of the trade area sales potential can be captured by Tyrone businesses.
- 4. Convert sales potential estimates into floor area requirements.
- 5. Convert floor area requirements into land area requirements.

Delineation of Trade Area. Normally, the first step in projecting the potential for future commercial development involves delineation of the potential trade area from which customers are most likely to be drawn. Distance and competition are the most important determinants of trade area because people will generally travel to the nearest businesses that serve their needs. Other factors that affect trade area include travel times, quality, service, variety of merchandise, and accessibility.

For ease of analysis, the Tyrone trade area will be the Township boundaries, and the Center Road interchange will be the targeted area for development.

Trade Area Sales Potential. Trade area sales potential is calculated using household income and expenditure data. The 2010 U.S. Census revealed that Tyrone contained 3,528 households. According to SEMCOG forecasts for 2035, the number of households in Tyrone could increase to 5,206. The median household income in Tyrone Township in 2010 was \$75,994.

Thus, the total gross income generated in the trade area is estimated as follows:

2010 2035
<u>Estimate</u> <u>Projection</u>
\$268,106,832 \$395,624,764

Data collected by the U.S. Department of Labor indicate that households spend approximately 25 to 30 percent of their gross income on retail goods. In other words, businesses in Tyrone have the potential to generate annual sales equal to 25 to 30 percent of the above gross income figures.

Local Allocation of Retail Sales. Residents in the market area make only a portion of their purchases within the Township. Residents take their business outside of the trade area for a number of reasons, including convenience, accessibility, price, quality, or variety of selection. The "capture rate" indicates the portion of total trade area sales actually captured by businesses in the trade area.

The capture rate for convenience goods businesses is usually about 85 percent in neighborhoods near the businesses, but the rate declines sharply at a driving distance of only 10 to 15 minutes from the businesses. Fifteen percent of the total sales will normally be generated by the transient population passing through or the occasional bargain hunter. For ease of analysis, it will be assumed that transient consumers and those traveling elsewhere for goods will negate one another.

Under ideal conditions, a strong comparison goods shopping center or district will draw 85 percent of its business from the surrounding trade area extending 3 to 5 miles from the district. Businesses in Tyrone do not offer enough variety to permit comparison on major purchases. Consequently, a large share of the comparison goods market is currently captured by shopping districts or centers in Fenton, Hartland, Brighton, Flint, Novi, and Ann Arbor. Other shopping districts are also developing in high-growth Livingston County centers like Howell and Genoa Township. These markets are able to support community shopping centers, which require a minimum support population of 40,000 to 150,000 people. Tyrone's market is more consistent with service by neighborhood shopping centers, which require a minimum support population of 2,500 to 40,000 people.

To summarize, the potential retail sales volume is derived by taking 25% of a trade area's gross household income. Tyrone's potential retail sales volume is as follows:

2010 \$67,026,708 2035 \$98,906,191 Retail Floor Area Requirements. Retail floor area requirements can be determined by dividing the sales volume estimates calculated above by sales per square foot. Sales per square foot data is published by the Urban Land Institute in an annual publication <u>Dollars and Cents of Small Town/ Nonmetropolitan Shopping Centers</u>. Annual sales in small town, neighborhood shopping centers in the U.S. average about \$300 per square foot, according to 2008 data (although this number can vary dramatically depending on the type of store). Based on this average, the total retail floor area needed to serve the Tyrone trade area is as follows:

Tyrone is able to meet the square footage requirement for the construction of a community shopping center, with over 100,000 square feet of additional retail floor space required by 2035. However, Tyrone lacks the support population necessary for a community shopping center to succeed. Additionally, nearby retail centers such as Hartland and Fenton currently absorb much of the demand created by Tyrone. Therefore, neighborhood shopping centers will be more feasible in Tyrone.

Land Area Requirements for Retail Development. A general standard for shopping centers is that the total site area should be about four times the gross building area. This floor-area ratio would provide ample room for parking, landscaping, stormwater management, and pedestrian and traffic circulation. Based on this floor area ratio, the total land area needs for retail uses in Tyrone is estimated as follows:

<u>2010</u>	<u> 2035</u>	
21 acres	30 acres	

If the entire anticipated additional demand were to locate within Tyrone, and assuming that the current commercial acreage supports the existing population, the Township would need an additional nine acres for retail development over the next 25 years. However, because nine acres is a small amount and vacant portions of parcels that are partially used for commercial tend to increase the total amount of land used (see below), we have multiplied the projected acreage by three to allow for choice in site selection. Therefore this Plan recommends 27 acres of additional land be planned for retail space. In order to maximize the Township's ability to capture the projected market, a more detailed market analysis should be performed to identify the demand in specific target sectors.

Land Area Requirements for Office Development. Most of Tyrone's office market growth will consist of office uses that serve the personal needs of those who live in the trade area. Nearby communities like Fenton are established locations in the market as the preferred locations for office developments. Planned general office complexes are targeted at much larger markets such as Ann Arbor or Flint. Future office uses in Tyrone will likely be small (1,000 to 2,000 square feet) and will be designed to accommodate medical and dental professionals, insurance agencies, real estate offices, travel agencies, legal services, and similar personal services.

Comparison of Requirements with Current Use. Currently, according to SEMCOG about 137 acres of land are used for commercial purposes in Tyrone. The large parcels occupied by these uses, and limited development capability of vacant portions of those parcels skew the analysis and do not provide an accurate picture of existing commercial use. Therefore we have assumed the existing 137 acres as the base value, and projected future needs from there. Based on the preceding market analysis, about 27 acres of additional commercial land should be planned for the next 25 years.

Types of Commercial Facilities. Review of the development criteria for various types of commercial facilities provides another perspective on commercial needs in Tyrone. Commercial development generally occurs in the form of a "strip commercial district" or as a shopping center. A shopping center is a "group of architecturally unified commercial establishments built on a site that is planned, developed, owned and managed as an operating unit related in its location, size, and type of shops to the trade area that it serves." There are three basic types of shopping centers:

- **Neighborhood Shopping Center.** Neighborhood shopping centers are intended to satisfy the convenience shopping needs of residents in the immediate trade area. A supermarket is typically the anchor tenant in a neighborhood center. Neighborhood centers range in size from 30,000 to 100,000 square feet, with a site area of 3 to 10 acres. The minimum support population for a neighborhood center is 2,500 to 40,000 people.
- Community Shopping Center. Community shopping centers offer a greater depth and range of merchandise than the neighborhood center. Typical anchor tenants may include a discount or off-price department store, a hardware/home improvement store, or a junior department store, along with a supermarket. Community centers range in size from 100,000 square feet to 300,000 square feet, with a site area of 10 to 30 acres. The minimum support population for a community center is 40,000 to 150,000 people.
- Regional Shopping Center. Regional shopping centers provide a variety of shopping goods, general merchandise, apparel, furniture, and home furnishings. Regional centers are typically anchored by one or more full-line department stores. Regional centers range in size from 300,000 to 1 million square feet, with a site area of 30 acres or more. The minimum support population for a regional shopping center is 150,000 people.

In addition to the three basic shopping centers described above, there are various specialized centers. One common type of specialized center is the convenience center. The convenience center typically contains a quick-stop convenience store, plus one or two other convenience uses, such as a coin-operated laundry, beauty or barber shop, or video store. Tyrone is adequately served by existing regional commercial facilities. Regional and community shopping center needs are met in Fenton, Flint, Hartland, Novi and Ann Arbor. The analysis presented herein indicates that neighborhood shopping facilities or convenience center facilities are the most appropriate type of development for the Tyrone area.

INDUSTRIAL DEVELOPMENT ANALYSIS

Industrial Development

The U.S. 23 Corridor is the area in Tyrone where industrial and commercial growth is expected in the future. Industrial and commercial trends favor the corridor over other locations in Tyrone due to its proximity to a limited access highway, and sanitary sewer availability. Community members favor the corridor as a location for nonresidential development, and thus limit nonresidential land uses to an area that will not conflict with the rural and residential character of the remainder of the Township.

As indicated in the existing land use survey, the corridor currently has sparse, somewhat incongruent uses lining portions of U.S. 23. The TRW plant at the Center Road interchange is the only major industrial facility in the corridor, although several smaller and land-extensive industrial uses also exist.

Industrial Development Trends

According to the Southeast Michigan Council of Governments (SEMCOG) projections, between 2010 and 2035, 173,650 jobs will be added to the region's total employment. Much of the growth is projected to come in the service sector, specifically scientific and technical services and the health care industry. By 2035, the health care sector alone is expected to represent over 20% of the region's employment base.

In 1965, the manufacturing sector's share of the region's total employment was 40 percent. In 2010 that share had dropped to 12% and is expected to drop to less than 7% by 2035. Notwithstanding this somewhat negative outlook for industry, there are some positive considerations:

- The Township can use the decline in manufacturing as an opportunity to enhance its sustainability as a more livable environment. Because service industry jobs typically do not require as much separation from residential areas, they can be located in walkable mixed-use communities, which are becoming more popular and which have generally held their value better than single-use areas over the past few years.
- The opportunity exists to tap into the growth of the service-oriented and knowledge-intensive economy. Communities that have focused attention on this part of the economy have generated high paying professional/technical jobs in occupations that require a college education or specialized post-secondary technical training. The benefits of these jobs in the local economy are felt in residential neighborhoods and schools.

Industrial Development Potential

Broad shifts in the economy will affect industrial development in Tyrone. The outlook for industrial growth is affected by market demand for industrial sites, residents' opinions regarding industrial growth, zoning patterns, vacant land availability, adequacy of the public infrastructure, etc. An examination of these considerations follows:

- Location. Though Tyrone does not currently have an office or industrial park located within
 the Township boundaries, the U.S. 23 Corridor links it with several such uses that are within
 a few hours truck drive. Therefore, Tyrone's geographic location could be an asset if
 industrial development is desired.
- Support Services. Tyrone lacks commercial and support services in the corridor. If industrial
 land in the Township gets developed, it is likely that new services in the Township will be
 developed. In the short term, the lack of support services may detract from the appeal of
 Tyrone's U.S. 23 Corridor as an industrial district.
- Transportation. A primary industrial location determinant is convenient access to freeway transportation. Tyrone is located in a good strategic location, with easy access to U.S. 23. The Township is midway between the I-75/U.S. 23 and I-96/U.S. 23 interchanges, providing excellent access to Ann Arbor, Lansing, Flint, and Detroit.

The lack of air cargo services, rail, or water transportation along U.S. 23 is not considered an impediment since these industrial necessities are within a reasonable driving radius. In the long term, the inadequacies of the local road network, which was designed to serve a rural population, will impede continued development.

Traffic impact is one drawback to service-oriented businesses or mixed-use office park developments, when compared with manufacturing, which is labor intensive. Light industry generates about 50-55 vehicle trips per acre per day; in contrast, industrial, office, and service environment may generate up to 400 trips per acre per day.

• Land Use Relationships. Industries generally prefer locations where land uses are segregated. There is concern when residential development is nearby because residents may object to noise, trucks and other industrial impacts. Corporations hesitate to locate on sites where longevity on the site or opportunities for growth is limited. This could be a concern in certain locations along U.S. 23 where single-family residential and other non-industrial uses exist.

The Future Land Use Map incorporates "transitional land use planning" in the corridor. This concept provides for intermediate-intensive land uses as a buffer between industrial districts and residential districts. In the U.S. 23 Corridor, this could be accomplished by separating the industry from nearby residential districts by office, research, or light industrial uses.

• Utilities. Public water and sanitary sewer utilities are likely to be the key to quality industrial development in Tyrone. One of the most significant impediments to development is the inability to find land that can support a septic system. Clay soils and a high water table are also traditional obstacles to development. In 2003 Tyrone Township joined the Livingston Regional Sewer System, which now provides sanitary sewer services along the U.S. 23 Corridor and to the Runyan Lake area. Public water, however, is not expected to be provided in the foreseeable future.

- Labor. There are several labor issues that must be considered when locating an industrial facility, including unions, availability of skilled labor, and unemployment levels. Despite the fact that Michigan is the most heavily unionized state in the nation, industrial employment is anticipated to grow in Livingston County. The labor force analysis of this plan indicates that Tyrone has an abundance of highly skilled labor. However, the Township's low unemployment rate could be detrimental because a potential firm would have to look outside Tyrone for an available workforce.
- Public Policies. There is a strong relationship between public policies and the ability to successfully locate a business or industry. Public policies with the greatest impact on industry are reflected in adopted planning and zoning standards, as well as the amount of financial incentives offered. Tyrone's zoning ordinance supports industrial development in its Planned Industrial Research Office (PIRO) Zoning District.

In conclusion, industrial site selection differs greatly from retail site selection. An area's amount of expendable income and the amount of local competition are no longer considerations. Instead, industrial site selection emphasizes infrastructure, a proximity to similar uses, and the willingness of a community to accommodate industrial development.

Projected industrial trends in Livingston County evidence some potential development in Tyrone. Tyrone is working to better position itself to capture some of the projected industrial development of the region by participating in SPARK, embracing an economic development strategy that includes a strategic plan, marketing and necessary infrastructure improvements. As the economy improves, so will the prospects of Tyrone Township.

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GENERAL OVERVIEW

As discussed in earlier chapters, Tyrone Township has a tradition that is rich in agriculture, and vast open spaces consisting of meadows, woodlands, and wetlands. In the past, it was just far enough from the major population centers of Detroit and Flint to avoid the intense regional development that pervades these areas. As of 2012, Tyrone still had a minimal amount of commercial and industrial development, and a relatively small population that is spread across approximately 36 square miles. At 10,020 people, Tyrone has 278 people per square mile, or one person per 2.3 acres of land.

LAND USE SURVEY

In 2008, SEMCOG released land use data, analyzing the Township by parcel to determine the percentage of land used for various activities. Table 16 and Map 3 show the results. The data does not take into account lot size. For instance, one single family home on a large lot is counted the same as several single family homes over the same area in a subdivision.

Table 16 compares this information to that found by McKenna Associates in its 2001 existing land use survey for the 2002 Master Plan. The McKenna survey used property maps, field surveys, and Geographic Information Systems (GIS) mapping technology. The SEMCOG survey used tax information and other local records. Both organizations augmented their findings using aerial photography.

Allowing for the difficulty in comparing between the surveys, the data does show an increase in the amount of land used for residential and a decrease in the amount used for farming.

Table 16: Comparison of 2001 and 2008 Land Use, Tyrone Township

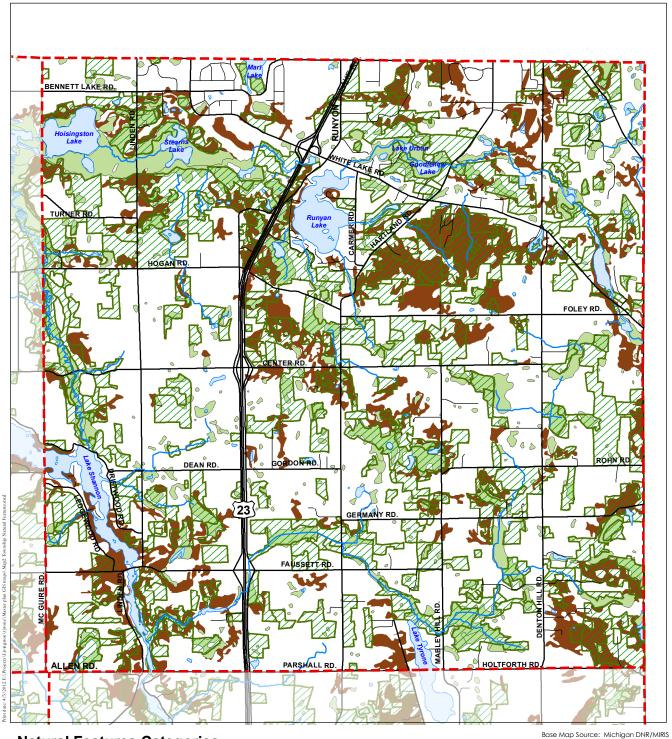
Land Use	2001		2008	
	(McKenna Survey)		(SEMCOG Estimates)	
	<u>Acres</u>	<u>%</u>	<u>Acres</u>	<u>%</u>
Agricultural	4,854	20.7%	3,588	15.2%
Commercial	45	0.6%	137	0.6%
Industrial	81	0.4%	113	0.5%
Government/Institutional	533	2.3%	187	0.8%
Single Family Residential	9,768	41.5%	16,983	72.1%
Multiple Family Residential	0	0.0%	0	0.0%
Park, Recreation, and Open Space	191	0.8%	643	2.7%
Water	653	2.8%	880	3.7%
Transportation, Communication, and Utilities	318	1.4%	1,024	4.3%
Airport	0	0.0%	0	0.0%
Total	23,555		23,555	

Source: SEMCOG 2008, McKenna Associates 2001

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Tyrone Township, Livingston County, Michigan



Natural Features Categories

Rivers, Lakes and Streams

Woodlands

Wetlands

Steep Slopes

Map 2 **Natural Features**





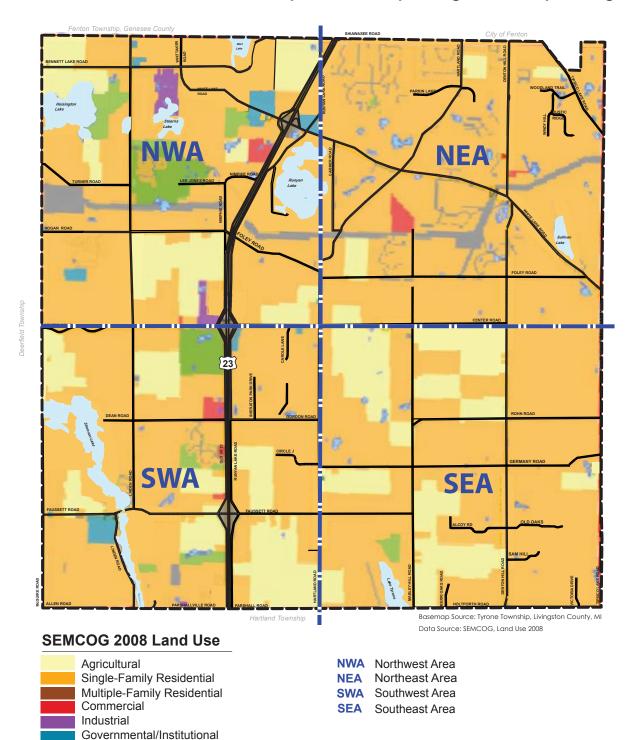
Data Source: Michigan DNR/MIRIS, NWI, McKenna Associates, Inc.



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Tyrone Township, Livingston County, Michigan



Map 3
Existing Land Use

Water

Park, Recreation, and Open Space

Transportation, Communication, and Utility

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LAND USE CATEGORIES

Definitions for the existing land use categories follow:

Agricultural. Consist of cultivated, crop-producing lands, livestock and poultry raising, dairying, and also may include such uses as a farmer's market and horse stables. This does not include uncultivated open space uses.

Commercial. Designated for sale of convenience and consumer goods, service-oriented businesses, and uses associated with offices. Examples in Tyrone include a gas station and a convenience store.

Industrial. Includes intensive production and assembly of goods produced for export, as well as lighter uses such as warehousing and distribution facilities. Extractive uses produce raw materials and are commonly associated with mines, quarries, and oil drilling.

Government/Institutional. Includes uses associated with a public body, such as the Township, County or State, in addition to public institutions such as schools and libraries. Also includes non-public institutions such as churches and private schools.

Park, Recreation, and Open Space. Public or private lands set aside for personal enjoyment and may include parks, preserved woodlands, and golf courses.

Single Family Residential. Consists of one-family detached homes. Lot sizes and density may vary.

Multiple Family Residential. Includes attached dwellings such as apartment complexes, manufactured home developments, and properties designed for residential occupation.

Vacant. Open, uncultivated, undeveloped, uninhabited, and unused space such as wetlands, woodlands, shrub and open meadows.

Transportation, Communication, and Utilities. Areas occupied by roads, public infrastructure, and other transportation routes such as a rail line.

Airport. Land set aside for an airport.

LAND USE ANALYSIS

For ease of interpretation, the following land use analysis divides Tyrone Township into four areas, each consisting of nine one-square mile sections. The Northeast Area is bounded by the City of Fenton to the north, the extension of Hartland Road to the west, Center Road to the south, and the county line to the east. The Northwest Area borders the county line to the north, Deerfield Township to the west, Center Road to the south, and the extension of Hartland Road to the east. The Southwest Area is bounded by Center Road to the north, Deerfield Township to the west, Hartland Township to the south, and Hartland Road to the east. The Southeast Area borders Center Road to the north, Hartland Road to the east, Hartland Township to the south, and the county border to the east.

Northeast Area

The Northeast Area (NEA) has traditionally experienced the most intensive residential development due to the "spillover" effect created by the City of Fenton. Over the past 20 years, residential acreage in the NEA has greatly increased through the platting of several new subdivisions, which creates a relatively dense land use for Tyrone. Residential land uses comprise the majority of this area of the township.

The largest tract of land devoted to industrial use is located in the NEA. Fenton Sand & Gravel is located along Fenton Road in Section 2 and consists of roughly 50 acres, only a small portion of the NEA. On the other hand, the NEA has the smallest amount of land of any of the quadrants devoted to agriculture, primarily due to heavy residential development. Virtually no large crop bearing farms exist in the NEA. Most farms are modest in size, and orchards and tree farms are the prevailing uses of the agricultural lands that remain. A successful agri-business, Heavenly Scent, grows and sells herbs, and conducts related education and tours on site.

There is more vacant land in the NEA than farmland. Large tracts of open space still exist, particularly 120 acres in Section 1, in the northeast corner of Tyrone, roughly 160 acres in Section 3 near Runyan Lake Road, and 160 acres in Section 13, off Foley Road.

Northwest Area

Uses in the Northwest Area (NWA) include two churches that tend to dominate the freeway interchange with White Lake Road. The larger church is located on the west side of the interchange, on the north side of White Lake Road. Immediately south of White Lake Road and opposite the church is a cemetery. A paintball recreation facility is west of Old U.S. 23 in the southwest quadrant of the interchange. A former sanitary sewage drain field for the Runyan Lake area, located on the south side of White Lake Road and just west of the cemetery, is now a sanitary sewer pumping station and vacant land. A third church is located in the area at the northeast corner of Bennett Lake and Linden Roads. In addition, a second cemetery is located at the southeast corner of Turner and Linden Roads. Located at Bennett Lake and White Lake Road is an extractive industrial operation, Bentley Sand & Gravel.

South of White Lake Road on Old U.S. 23, is a large concrete manufacturer known as the Fenton Concrete Company. The industrial nature of the concrete company dominates that section of Old U.S. 23. A small residential street named Nimphie Road extends west of Old U.S. 23 and intersects Lee Jones Road approximately 500 feet west of Old U.S. 23.

TRW, an auto parts manufacturer, owns a manufacturing facility on the northwest corner of the Center Road intersection with Old U.S. 23. The plant was owned and operated by the Kelsey-Hayes Corporation for many years. The Center Road freeway interchange provides excellent access for the industrial facility. The most significant deficiency of this location for TRW is that public water facilities are not available. The company constructed a wastewater treatment facility and a water tower in order to use the site, both of which have limited capacity. As the manufacturer grows on the site, the private facilities will be pressed to their limits, however the situation has been greatly improved by the public sanitary sewer system which became available in 2003. Thus the vicinity is now more attractive for other industrial enterprises, despite the lack of available public water.

Woody's, a convenience store, vehicle repair, and tow-truck service, stands in front of the TRW plant. The store provides convenience foods and beverages.

Residences of varying sizes dot the roadside adjacent to Nimphie and Lee Jones. Nimphie Road turns south toward the intersection with Hogan Road approximately ¼ mile south of the Lee Jones Road intersection. More homes dot the roadside as Nimphie extends south to Hogan. Substantial productive agricultural land is found immediately west of the Old U.S. 23 right-of-way on the north end of the area. The agricultural land fronts on Old U.S. 23, north of the White Lake Road interchange, and extends north to the northern Township boundary.



On the east side of the interchange, White Lake Road provides access to intensely developed single-family detached homes around the perimeter of Runyan Lake. The lake is south of White Lake Road. Much of Runyan Lake is surrounded by houses on narrow lots. The south end of the Runyan Lake area is delineated by a power utility easement that stretches from the freeway to the east.

Overall, residential development consumes less than half of the NWA. Three significant developments exist. The first is the intense lake residential development surrounding Runyan Lake. The second development is a series of subdivisions located at the northern border of Tyrone. These subdivisions are similar to those in the NEA that border Fenton. The third significant development is the 160-acre Tyrone Woods manufactured home development off Hogan Road in Section 18. Most other residential lots are five to ten acres in size and are dispersed throughout the area.

The Coyote Preserve golf course development is at the northeast corner of Turner and Linden Roads, and contains over 240 acres. The course was designed by the Arnold Palmer Company. Several large agricultural sites exist in the NWA. The four most significant are: 160 acres in the northwest corner of Tyrone, 160 acres north of White Lake Road, just east of U.S. 23, approximately 600 acres taking up most of Section 16 of the Township, and 280 acres to the southeast of the mobile home park.



Large tracts of vacant lands exist in the NWA that are well dispersed. North and west of the Turner/Linden Road intersection is about 160 acres of vacant land. Approximately 250 acres of vacant land extends from the large church site west of U.S. 23 to Linden Road. Roughly 200 acres are bounded by Turner Road to the north, Hogan Road to the south, and Linden Road to the east. 200 acres lies to the north of Center Road along the Deerfield Township border. Slightly less than 300 acres exists in Section 16, northwest of the Old U.S. 23/Center Road intersection. Other smaller parcels of vacant land exist throughout the NWA.

Southwest Area

The Southwest Area (SWA) has considerable residential development, second only to the NEA. Development is particularly intensive along Lake Shannon near Parshallville. Lake Shannon crosses the Township line, westward into Deerfield Township. Sections 19 and 31, which are north and south of the Lake along the Deerfield Township boundary, are characterized by less dense residential uses that encompass the majority of the square mile sections. The same is true in Sections 21 and 28, which are bounded by Center Road to the north, U.S. 23 to the west, Faussett Road to the south, and Hartland Road to the east. Other residential development in the area is dispersed and on large lots.

Located at Old U.S. 23 and Parshallville Road is the 600 unit Cider Mill Crossing manufactured home development. The remainder of the southern end of the U.S. 23 corridor has a more rural feel than the northern portion of the corridor. South of Dean Road on the west side of U.S. 23, one significant development is the Pennington Gas storage facility. The large bottled gas tanks are clearly visible from the freeway. Just north of Pennington, east of the Irish Hills PUD is a trailer sales operation known as the Fenton Trading Post, with a distinctive barn. Three other commercial/industrial establishments front on Old U.S. 23 about ¾ miles south of Center Road.

Action Watersports, Trusted Tool Company and a mini warehouse company are all located on Old U.S. 23, north of Dean Road.

Tyrone's best-known facility is likely the Tyrone Hills Golf Course, located at the southwest corner of Old U.S. 23 and Center Road, opposite the TRW plant. The golf course has attracted many golf enthusiasts as visitors to the Township over the last 40 years. The course takes advantage of rolling hills and scenic vistas that create a beautiful environment for golfers. It has been noted by some observers that the location of the golf course is ideal for other types of commercial development. However, many residents and Township officials have noted that the golf course is ideally located because it is an attractive facility to be located at the entrance to the community.



Tyrone Township Hall is located near the southeast corner of the Center Road/Carole Drive intersection. The Church of God owns a parcel on the west side of U.S. 23 that is used for offices and a retreat facility.

The only large tracts of agricultural land lie to the east of U.S. 23. Roughly 200 acres lies north of Faussett Road, and roughly 360 acres lie to the south. Several vacant parcels can be found dispersed throughout the SWA. One of the most significant of these is over 120 acres of wetlands located just north of Lake Shannon.

Southeast Area

The Southeast Area (SEA) has the most even balance of agricultural, vacant, and residential uses. Virtually all residential development in this area is on large lots, with exception of the dense development west of Mabley Hill Road and north of Hartland Township, surrounding Lake Tyrone. This development also extends south along the portion of Lake Tyrone that is in Hartland. One cemetery exists near the southeast corner of the Hartland Road/Germany Road intersection.

Agriculture is dispersed throughout the area. Three farms of approximately 160 acres exist southeast of Hartland and Center Roads, southwest of Fenton and Center Roads, and southwest of Fenton and Alcoy Roads. In addition, numerous 60 to 80 acre agricultural parcels are scattered throughout the SEA, and help give this area its distinctive character, different from the rest of the Township.

Like the agricultural and residential uses in the SEA, vacant land is abundant and dispersed. Two particular large tracts are a 250 acre area between Dean and Rohn Roads, and a 240 acre area north of Rohn Road along the eastern county border.



INTRODUCTION

Transportation systems are an important aspect of any community because they facilitate movement within and outside its boundaries. The following is an assessment of Tyrone's vehicular, air, and pedestrian transportation systems. There are no rail or water transportation systems available in Tyrone.

VEHICULAR TRANSPORTATION

Road Classifications

The traffic along the roads and highways in Tyrone has developed a circulation pattern based on the capacity of the roads, traffic signals, number of trips and the location of destinations both within and outside of the Township. To help plan for future land use, it is necessary to categorize and analyze the roads within the community.

The Federal Highway Administration (FHWA) has developed the National Functional Classification (NFC) system to classify all highways, streets, and roads according to their function. This system is recognized as the unofficial road classification system by transportation engineers and planners around the country. The NFC designation is also responsible for determining those roads which are eligible for federal aid. Map 4 Road Classifications, illustrates the NFC designations of the roads in Tyrone.

Interstate Highways

The primary function of an interstate is to move people and goods over long distances between states at high rates of speed with very limited and controlled access. Typically, interstates have posted speed limits between 55 and 70 mph. The nearest interstates are I-75, which is approximately 12 miles to the north of the northern township border, and I-96 which is about 12 miles to the south of the southern township border.

Principal Arterials

A principal arterial's primary function is to accommodate long distance travel between communities to expressway interchanges and within or between cities. They also provide access to important traffic generators, such as major airports or regional shopping centers. Principal Arterials are divided into the classifications "Freeway" and "Non-Freeway." An example of a non-freeway principal arterial would be "mile" roads, which typically have posted speed limits of 35-45 mph in urban areas and 45-55 mph in rural areas. U.S. 23 is a freeway principal arterial, and is the only principal arterial in Tyrone. It is of note

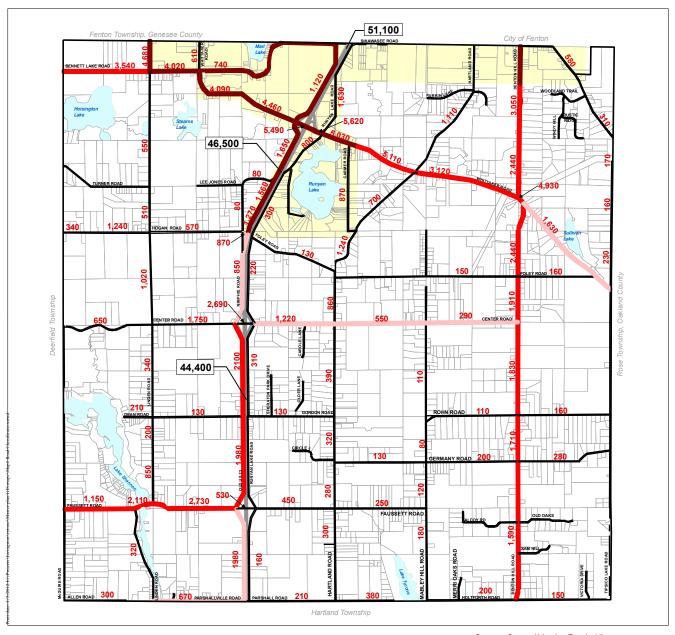


that while U.S. 23 is the primary and vital north-south transportation linkage in the Township, it also creates community barrier, dividing the east and west portions of Tyrone. To the south in Hartland Township, M-59 a state highway, functions as a principal arterial for east-west traffic.

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Tyrone Township, Livingston County, Michigan



Basemap Source: Livingston County, MI Data Source: MDOT & Livingston County Road Commission

Road Classification

Local
Rural Minor Collector
Rural Major Collector
Urban Collector
Principal Arterial - Freeway

Traffic Counts (Average Vehicles per Day)

US 23 2009 MDOT Data

2011 Livingston County Road Commission Data

Urban Area (Federal Aid Urban Boundary)

Map 4

Road Classification







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Minor Arterials

The primary function of a minor arterial is to move traffic within the community, rather than to provide connections to other communities or expressway interchanges. Minor arterials are similar in function to principal arterials but they generally carry less traffic and provide connections between smaller traffic generators or communities. Accessibility is greater, but stops are more frequent due to signalized intersections. Access to adjacent land uses is as important as function, so speeds are usually slower than with a principal arterial. There are no minor arterials in Tyrone Township.

Major Collectors

The main function of collectors is to collect traffic from nearby local streets and link it with the surrounding arterial street system. Urban collectors are considered to be equivalent to major collectors, and both are eligible for federal funding. Generally, collectors are not intended for through traffic, but may be forced into this role if arterials become congested or are not available. Rights-of-way are typically less than arterials but greater than local streets. Collectors also funnel traffic from residential or rural areas to arterials.

There are several major and urban collectors in Tyrone. Faussett Road is a major collector between Deerfield Township and Old U.S. 23. Old U.S. 23 is classified as a major collector between Faussett Road and Center Road, and is classified as an urban collector between Hogan Road and the Fenton border. Bennett Lake Road is a major or urban collector between Deerfield Township and Old U.S. 23. White Lake Road is a major or urban collector between Bennett Lake Road and Denton Hill Road. Denton Hill Road is a major or urban collector throughout its expanse in Tyrone Township.

Minor Collectors

Minor collectors function similar to major collectors. Their primary function is to collect traffic from nearby local streets and link them to major collectors and ultimately with the surrounding arterial street system. Rights-of-way, once again, are typically less than arterials but greater than local streets.

There are several minor collectors in Tyrone. Old U.S. 23 is so classified between Hartland Township's northern boundary and Faussett Road, and between Center Road and Hogan Road. Parshallville Road is a minor collector between Linden Road and Old U.S. 23. Center Road is a minor collector between Old U.S. 23 and Foley Road. White Lake Road classified as a minor collector between Denton Hill Road and Tipsico Lake Road.

Local Roads

Local roads primarily provide access to property, but also provide residents access to neighboring residential and non-residential land uses in the immediate area and to collector roads. All roads not previously mentioned or not designated with one of the NFC classifications on Map 4 Road Classification are classified as local roads.

Urban Area

The Federal Highway Administration utilizes Census data to differentiate between urban areas and rural areas. The primary reason is that travel characteristics and density of development differ between the two land use areas. Urban areas can either be an urban place with a population between 5,000 and 49,999 people or an urbanized area which is a combination of an urban place and a densely populated surrounding area with more than 50,000 people.

Within urban areas, the percentage of streets within each functional classification category is different from the rural areas. Urban areas have a higher percentage of arterials and rural areas have a higher percentage of collectors. The urban area boundary also differentiates between the names assigned to road classifications. Old U.S. 23 is a major collector outside the urban area and an urban collector within the urban area, except where otherwise indicated on the map.

TRAFFIC VOLUMES

Average Daily Trips

Traffic volume counts are a numeric tabulation based upon usage of a particular segment of street. The counts are a tool used to determine if roads are meeting or exceeding their design capacity. The Michigan Department of Transportation (MDOT) maintains data for arterials and interstates. These 24-hour traffic counts, commonly referred to as Average Daily Trips (ADT), help identify where traffic volumes may be approaching or exceeding the design capacity of the road. Traffic counts are



taken several times during the course of a year. The counts are then used to determine the average number of trips per day for a one year period. The traffic counts discussed below represent an annual average calculation. Major and local streets in Tyrone Township are under the Livingston County Road Commission's jurisdiction, and that agency is the source of the traffic count data for those roads.

Traffic counts based on the most recent data available from MDOT and the Livingston County Road Commission are shown on Map 4 Road Classification. U.S. 23 has the highest traffic volumes, increasing from 44,000 ADT in the south to 50,000 ADT north of Center Road.

Road Construction and Maintenance Funding

Roads classified as interstates, principal arterials, minor arterials and major collectors are eligible for aid through any of the federal aid programs. The current federal surface transportation authorization, SAFETEA-LU, has been extended several times for short terms, and House and Senate leaders have offered differing proposals for reauthorization. Its future is

uncertain. Minor collectors and local roads are not eligible for federal aid. The Michigan Department of Transportation is responsible for maintenance and improvements for U.S. 23.

The Livingston County Road Commission is responsible for the maintenance and improvements of all other public roads in Tyrone Township. The Road Commission receives Township, federal, State of Michigan and County funding for the maintenance, expansion and reconstruction of all county roads and bridges. Funding is typically generated through P. A. 51 of 1951. Based on an optimistic road life expectance, the cost to rebuild roads per mile and the amount of roads which the Road Commission is responsible for, there is still a very substantial short-fall between the needed funds per year and the funds available. The Road Commission currently inventories the capacity and classification schedules of all roads and conducts maintenance and reconstruction based on these characteristics.

The construction of any new local roads in the Township is accomplished through a Special Assessment District (SAD) or paid for as a cost of new development. The cost of construction in an SAD is spread among the land owners benefitting from the improvements. Therefore, the use of a SAD is only feasible in circumstances where the benefits will adequately offset the costs incurred.

Regional Road Circulation Plans

The Livingston County Road Commission was consulted concerning potential future improvements to the road system. The Commission creates three year plans based on the funds available from the federal and state governments.

VEHICULAR TRANSPORTATION ANALYSIS CONCLUSIONS

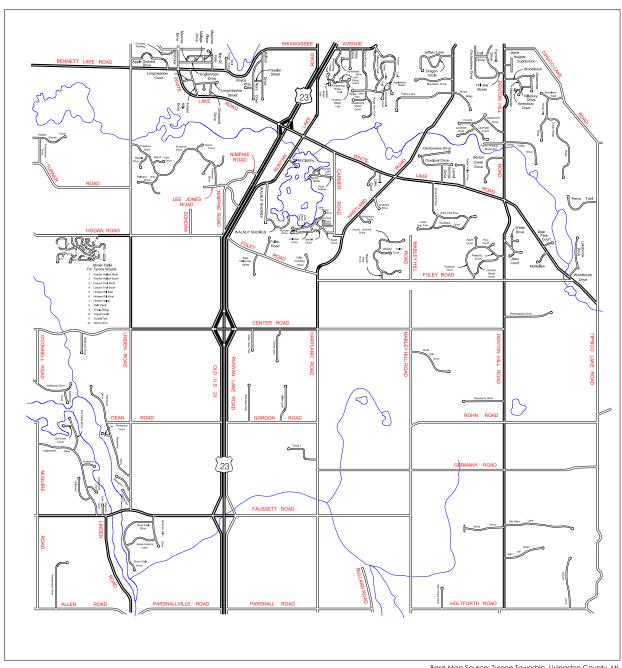
Map 4 Road Classification illustrates the existing circulation pattern. The existing pattern is generally intended to transport goods and people through the Township. The ability for traffic to efficiently flow without unexpected stops or unprecedented congestion is an important part of the quality of life in a community as well as a vital issue in the economic development of a community.

Transportation system improvement priorities should be established for the road network. The location and characteristics of a road have a far-reaching impact which is not often a consideration when transportation issues are addressed only by engineers. While transportation priorities such as road improvements, widening, and other traffic management techniques such as signalization of intersections, left and right hand turning movements, and turning restrictions may address traffic problems, typically consideration is not given as to how those improvements, or lack thereof, affect the adjacent land uses.

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Tyrone Township, Livingston County, Michigan



Base Map Source: Tyrone Township, Livingston County, Ml. Data Source: Tyrone Township, Delta Surveying, 2001

Paved Road
Unpaved Road

Map 5
Paved Main Roads





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There are several other factors that a community should consider with respect to its transportation system as it strives to facilitate ease of traffic flow:

- Access Management. The capacity of a highway or road, and traffic safety can quickly deteriorate if development is allowed to occur without proper attention to access control. Access control is a particular concern along the U.S. 23 Corridor, where most of the intensive development in the Township is anticipated to occur. As developments are proposed, attention must be focused on spacing between driveways, driveway design, potential for shared access, the need for acceleration/deceleration lanes, number of driveways per site, sight lines, and similar considerations.
- Transit/Demand Management. The Township should recognize that its growth may create the need for road improvements, the extent of which is likely to out-pace the ability to finance improvements. As a result, other measures must be considered that will decrease the demand on the roads. It is unlikely that the Township will find itself in a position of being able to build itself out of its traffic problems; adequate funds will not be available. Accordingly, other opportunities should be sought, such as increased ride sharing, public transit, non-motorized alternatives and van pool programs or other forms of transit run by employers.

Increased use of transit can have the effect of reducing the overall volume of traffic along major roadways, thus enhancing traffic safety, reducing congestion, lowering maintenance costs, and improving accessibility to land uses within the Township. This need can best be addressed on a regional basis in cooperation with surrounding communities. For example, the Livingston Essential Transportation Service (LETS) is a lift-equipped small bus system in Livingston County. The system offers door-to-door transportation to anyone in the County, with dial-a-ride services on a reservation basis.

- Right-of-Way. Along with financing, lack of sufficient right-of-way area is often the
 largest obstacle to increasing traffic capacity. Ample public right-of-way should be
 secured along roadways to facilitate further expansion through lane and turn-lane
 additions. A program could be developed that allows the purchase of additional
 right-of-way in areas where future traffic demand could require greater capacity;
 developers will often dedicate right-of-way in conjunction with their private projects.
- Incomplete Road Systems. The development of a complete road network would also be furthered by uniting established incomplete collector roads. Completing existing missing road segments such as Center Road, Foley Road, Gordon Road, and Mabley Hill Road, would provide additional continuous routes which would create a more complete road network and alleviate potential congestion on other roads. The development of continuous collector roads on quarter section lines should be a priority in improving the Township road network.

East-west transportation linkages are particularly lacking in Tyrone. The extension and paving of Center Road and/or other east-west roads would greatly enhance the transportation network of Tyrone and improve linkages with Rose Township and Oakland County. The participants in the Master Plan Visioning session expressed their desire for better east-west connectivity.

• Truck Routes. White Lake Road, west of U.S. 23, is the most used east-west route for trucks in Tyrone. SEMCOG designates it as a truck route, but the Livingston County Road Commission states that that is not an official designation. Due to the excessive noise, road deterioration, and congestion brought on by truck routes, they are generally inappropriate in residential areas. Improvements to alternative east-west routes should be sought because White Lake Road serves the most populated residential area in the Township. This relationship creates adjacent, incongruent uses that can be obtrusive to residents' everyday enjoyment of their community and quality of life.

Trucks are currently permitted on all paved roads in the Township, with the exception of Linden Road between Center and Hogan Roads. Hartland Road between White Lake Road and the northern township line has a 5 ton weight limit.

 Gravel Roads. According to the most recent Livingston County Road Commission data, 56% of the roads in Tyrone Township (excluding U.S. 23), are unpaved gravel roads. Roads in Tyrone should be paved in order to facilitate safer, more efficient transportation in the Township. Roads with greater traffic impact should be given first priority.

Rather than allow other entities to cause change to the road network in Tyrone, the Township should take a proactive approach to transportation. However, as is the case throughout the State of Michigan, the Township is limited in its ability to directly control improvements to the roads. As previously noted, the Livingston County Road Commission is the agency that controls most roads and streets in the Township. Therefore, the Township should forge a partnership with the County, land developers and Tyrone residents to assure road improvements are accomplished consistent with the overall policies for land development in the Township.



AIR TRANSPORTATION

Residents in Tyrone have several options when seeking air transportation opportunities. Three airports primarily serve passengers in the region. Those are discussed below.

The Detroit Wayne County Metropolitan Airport (Detroit Metro), located in Romulus, Michigan, is the largest airport in the region. Tyrone residents can reach the airport by taking U.S. 23 south to the freeway system serving the airport in the Detroit area. The airport has 14 major scheduled airlines. Detroit Metro offers connections to 28 international destinations, as well as dozens of domestic airports. Charter flights and commuter airline flights are also available from the airport. The airport is a cargo hub for United Parcel Service and Federal Express.

Bishop International Airport in Flint, about 15 miles north of the Township, can be accessed via U.S. 23. Five airlines serve the airport. Bishop International is also a cargo hub for Airborne Express, Federal Express, and Emery Worldwide.

The Oakland County International Airport is located in Waterford Township and can be reached by taking U.S. 23 south to M- 59 east. It is approximately 25 miles from the Center Road interchange.

PEDESTRIAN AND BICYCLE TRANSPORTATION

Sidewalks

Consistent with many other rural communities, Tyrone lacks a cohesive sidewalk system. Sidewalks that do exist in the community are sporadic, and only link homes within individual subdivisions. Sidewalks and/or bike paths should be promoted, where appropriate and in conjunction with development, linking the community and promoting pedestrian and non-motorized vehicle activity. This could be achieved by adding sidewalks within and on the perimeter of existing developments and requiring sidewalks in new developments. Requiring sidewalks within and along the perimeter of developments would enhance connectivity in the community, provide an attractive community amenity, and reduce potential congestion brought on by the projected population growth.

As with any non-motorized transportation program, safety should be a primary consideration. Sidewalks should be adequately buffered from the roadside, and bike paths should be separate from the road. This excludes curbside "diamond lanes" which often create undesired and unsafe bicycle/ motor vehicle confrontations.

Greenways

In 2002, Livingston County included a Greenways Vision in its Comprehensive Plan. This greenways plan considered information from the Greenways Collaborative, MDNR, and SEMCOG, and has been carried over into the recently prepared Livingston County Parks and Open Space Plan. According to the earlier Southeast Michigan Greenways Plan, produced by the Rails-to-Trails Conservancy and the National Park Service Rivers, Trails, and Conservation

Assistance Program, a greenway is defined as "A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route."

Greenways serve important natural resources and aesthetic functions in a community, in addition to offering alternatives for transportation. Greenways are ideal for bikers, pedestrians and joggers, and in-line skaters. Greenways serve as paths connecting parks, nature reserves, population centers, historic sites, and cultural features of a region. The locations of planned greenways are discussed in further depth in the Community Facilities chapter of this Plan, under Parks and Recreation.

COMPLETE STREETS

Tyrone Township recognizes the importance of street infrastructure and modifications such as sidewalks, crosswalks, shared use paths, and accessible curb ramps, in appropriate locations and consistent with the character of the development, in order to make streets in the Township safe and accessible for all legal and relevant users.



INTRODUCTION

The esteem, identity, and desirability of a community are related in part to the level and quality of public services offered, including education, parks and recreation, police and fire services and public utilities. The responsibility for providing public services to residents of the Township is shared by several public entities, including the Township government, several Livingston County departments, various state offices, and the school districts associated with Tyrone.

Key determinants of future demand for public services include population, number of households, and types of land uses. With population and land use pressures projected to increase over the next ten years, it is anticipated that the public services in the Township will have to be expanded.

TOWNSHIP FACILITIES

The Township Hall is located at 10408 Center Road, east of U.S. 23. The Hall serves the Township administration, and elected and appointed officials. The Township Board recently made improvements to the Township Hall to provide for more effective use of the interior area, has incorporated energy savings initiatives (LED lighting, high efficiency furnaces, new windows), and has upgraded equipment to provide full audio and video recording and broadcasting capabilities, and repaved the parking lot.



POLICE AND FIRE PROTECTION SERVICES

During the October 8, 2001 Visioning Session, Tyrone residents identified the need for increased fire services as the top priority regarding public services. The Township has since amended its fire protection services and is currently served through contractual agreements with the City of Fenton, Fenton Township, and the Hartland-Deerfield Fire Authority, each primarily serving specific geographical areas of the township. The services now provided are adequate for the Township.

Many rural communities encounter difficulty providing a pressurized hydrant system that is utilized in most cities to combat fires. Where appropriate, the Township promotes a less expensive alternative to developing a pressurized water system, a dry hydrant system. Dry hydrants are promoted by the National Fire Prevention Association (NFPA) in rural areas as a means of fire protection. A dry hydrant is a non-pressurized, low-cost pipe system installed along the bank of a body of water. The top of the pipe extends above the ground next to a body of water and the bottom of the pipe extends down into the water.

Police protection is provided by the Livingston County Sheriff's Department and the Michigan State Police. The Livingston County Sheriff's Department is located in Howell, and the nearest satellite post is in Hartland Township at M-59 and U.S. 23. The state police post in closest proximity to Tyrone is located in Brighton. There is currently one car dedicated to Tyrone and Hartland Townships on a 24-7 basis.

PUBLIC UTILITIES

Sanitary Sewer

The 2001 Visioning Sessions revealed that Tyrone residents rated the development of a sewer system as a particularly high priority. To that end, in 2003 the Livingston Regional Sewer System was formed, and now provides sanitary sewer services to the U.S. 23 corridor and the Runyan Lake area. This system is expected to include the Lake Tyrone area in the future. Lake Shannon is also a desirable participant since sewers around lakes have been proven to result in greatly improved water quality.

The provision of gas and electric lines is privatized and follows the patterns of development inherently. However, sanitary sewer capacity is costly and often limited in capacity. Negative impacts of poor sanitary sewer supply can be severe, due to potential groundwater contamination. As a result, it is a primary limiting factor to intensive development, such as multifamily housing or commercial uses, in rural areas.

History of the Sanitary Sewer System

Recognizing this conflict between development pressures, a rapidly growing population, and a subsequent demand for increased services, Tyrone Township conducted several studies related to the provision of a sanitary sewer system. The purpose of these studies was to determine current needs as well as projected needs in the year 2020.

The first study was prepared in 1995 by McKenna Associates and Williams and Works, Inc. It examined local and regional growth trends, projecting areas within Tyrone that would witness the most growth over the next several decades. It determined areas with the greatest need and outlined several wastewater treatment alternatives. The study used existing soils and topography data to determine areas that were less suitable for development from a physical standpoint. In short, it outlined key areas on which to focus sanitary sewage development and areas to avoid.

The second study was produced in 1998 by Tetra Tech (formerly McNamee, Porter, and Seeley) Incorporated. This study built upon the first by blending the results of a community survey with the existing population analysis, soil and topography data, and areas of limitation to create a prioritized map of future sanitary sewage extensions. The study gave tangible hard costs to the areas targeted for development, and outlined initial areas for development, as well as short term and long term sanitary needs.

The resulting Future Land Use Map targeted initial needs along densely populated residential areas such as Lake Shannon, and future commercial development areas to the west of the Center Road and White Lake Road interchanges. Short and long term development areas included areas near dense existing residential development, such as the sections of Tyrone closest to Fenton, and areas with large tracts of parcels that have future development potential, such as the land west of U.S. 23.

Prior to the creation of the Regional Sewer District, the homeowners surrounding Runyan Lake paid to replace their individual septic systems with an extensive sewage collection and treatment system that included a drainage field for the septic waste near the cemetery west of the freeway. Those sewage system improvements were installed to prevent degradation of the water quality in Runyan Lake. In 2003 these same residents joined the Livingston Regional Sewer System, and abandoned the drainage field due to concerns with future surface water discharge permit requirements.

Description of the Sanitary Sewer System

The Township has purchased up to 1,500,000 gallons per day from the Genesee County wastewater treatment facility. The additional capacity from Genesee County allows for many more public sewer connections within the Township. The existing Regional Sewer District was established in the Township with the cooperation of the Livingston and Genesee County Drain Commissioners in 2003 to administer the system within the Township. The District immediately allocated 2,063 of the approximately 5,760 Residential Equivalency Units (REU's) to existing, proposed and planned developments within the Township. An REU is a measurement tool used to estimate wastewater treatment needs based upon a standard usage per day for a single family residence. A non-residential use generally produces more flow than a single family residence, and thus requires greater treatment capacity.

While extensions of the public sewer system are not planned, it is intended that any future changes continue to focus on the west side of U.S. 23 and the environmentally sensitive and concentrated areas around the lakes. These are also the areas planned for highest densities and intensities of development. The future land use map was prepared with this in mind so that the Master Plan and the Sewer Plan would be compatible with one another. Therefore, the presence of utility service alone will not be used to drive development decisions. Development proposals must satisfy the Master Plan requirements for a site to be approved.

Broadband Service

The availability of high-speed internet and cell phone coverage are often issues in rural communities. Efforts should be made to identify opportunities to improve these services in Tyrone, as more residents become reliant upon them.

SERVICES BOUNDARY

Establishing a Services Boundary is one method of coordinating the rate and direction of development with the ability of the Township to deliver public services (primarily sanitary sewer) in an efficient and cost-effective manner. The Services Boundary identifies areas in the

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Township where provision of public utilities is a priority. If there are limitations on the capacity of sanitary sewer, then areas within the Services Boundaries should receive the utilities first. Other areas in the Township may also be served, provided there is sufficient capacity in the utility systems, and provided that proposed development is consistent with the Master Plan.

Map 6 illustrates the existing public sewer in the Township, the Livingston County Regional Sewer System and the proposed Services Boundary. The Services Boundary surrounds land expected to absorb the Township's full allotment of the sewer system's capacity at the treatment facility, and is generally located along the U.S. 23 corridor. Within the boundary, the land has been planned to accommodate a level of development that would demand urban services. As land within this boundary develops, services will be required and developers will be required to extend the services to accommodate those uses.

However, it is not desired for services to be expanded beyond the Services Boundary. Therefore, properties in these areas were planned to limit the spread of urban services and development. The Services Boundary location is not permanent. Like all other aspects of this Master Plan, it is subject to future amendment and update. In fact, as the vision of the Township changes, or infrastructure needs shift to other areas in the Township, it may be necessary to amend the boundary to accommodate these changes.

LIBRARY FACILITIES

Public libraries have a prominent role in most communities as cultural centers. They can provide books, computers, music lending as well as listening equipment and facilities, video and visual-aid facilities, computer access, book clubs and lecture series. Surveys intended to assess a community often use the number of books in its library as a means to quantify the quality of life of residents.

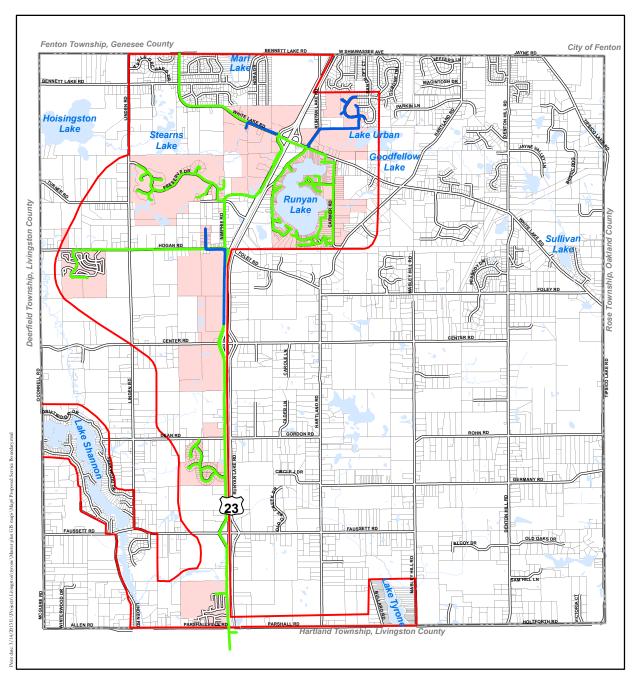
Residents of Tyrone are currently served by several area libraries, though none exist within the Township. Nearby libraries include the Hartland Cromaine library and the Fenton library. Other county libraries include the Howell Carnegie library, the Brighton district library, and the Hamburg Township library. Although in 2001 participants in the Master Plan Visioning sessions placed a high priority on a library facility as a desired public amenity for the Township, the 2011 Visioning Session did not support that recommendation. While the previous Master Plan recommended a new library be pursued, residents today appear satisfied with the library facilities available to them.

POST OFFICE

Part of the identity for a community is having a unique zip code and post office. Tyrone is currently served by the Fenton, Michigan post office, zip code 48430. The Township is not large enough to warrant its own zip code or separate U.S. post office.



Tyrone Township, Livingston County, Michigan



Legend

Existing Gravity Main

Existing Pressurized Main

Services Boundary

Special Assessment Districts

Map 6 Proposed Services Boundary





Base Map Source: Livingston County GIS, 2004 Sewer Data Source: Tyrone Township, 2013 Boundary: Tyrone Township Planning Commission This page intentionally left blank.

CEMETERIES

There are three Township cemeteries, and the private Tyrone Memorial Gardens. The Clough Cemetery is located at the intersection of Turner and Linden Roads, bordered on three sides The Preserve by condominium and golf course development. The Colwell Cemetery is on White Lake Road, across from the Tvrone Covenant Presbyterian Church. The Gardner Cemetery is just south of the Germany/Hartland Road intersection.



SCHOOL FACILITIES

For many communities, identity is manifested through their school system. Tyrone is currently serviced by three public school districts: Fenton, Hartland, and Linden, as shown on Map 7. The Hartland district serves the southwest portion of Tyrone, including near the Parshallville settlement. The Linden school system serves the northwest portion of the Township. The rest of Tyrone is served by the Fenton school system, including the densely settled Runyan Lake area, as well as relatively high population areas near the Fenton border.

The following table shows enrollment data for the three school systems that include Tyrone. Enrollments have fluctuated in all three districts over the past 5 years, and all have slightly lower enrolments now than in 2006. The Fenton and Linden schools experienced similar rates of decline in enrollment between 2006 and 2011, decreasing 3.8% and 3.7% respectively. Hartland declined less, with just a 1.4% student loss. All three districts are designated Schools of Choice.

Additional education opportunities are offered by respected private and parochial schools in the area. For continuing education, community college courses are taught at the Hartland school facilities.

Table 17: School Enrollment by District

Year	Hartland	Linden	Fenton
2007	5,641	3,088	3,606
2008	5,656	3,069	3,609
2009	5,613	3,047	3,468
2010	5,549	3,031	3,539
2011	5,559	2,971	3,472

Sources: State of Michigan Standard and Poor's

The Michigan Department of Education provides a "Dashboard" to highlight the performance of various school districts in the State. In 2011, the Dashboard reported that all three districts performed above the state average in preparing students for college-level Reading, Writing, Math, and Science. Also, in all three districts, over 70% of third graders read at or above grade level – in Fenton the number is 76%, Linden 71%, and Hartland 78%.

According to the 2010 census, there are slightly fewer than 2,400 school-age children in Tyrone Township. If current trends continue, this number will stay the same or decline slightly. However, the Linden school district is considering building a new elementary school somewhere in its district. The Township should consider encouraging an elementary school to locate in an area planned for residential development that has adequate infrastructure to support the building and the students, faculty, and staff that will commute there each day.

SENIOR CENTERS

Hartland Senior Center

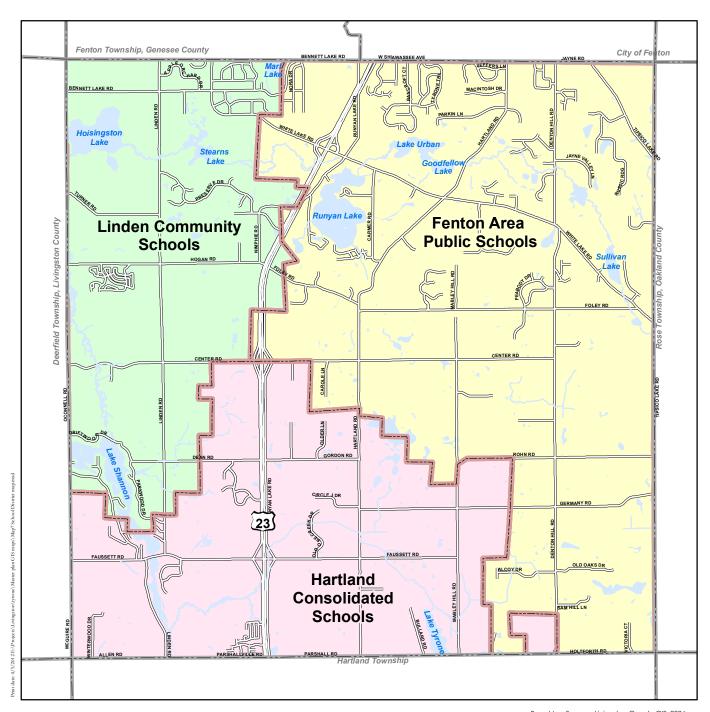
The Hartland Senior Center is located in the Hartland Educational Support Services Center, 9525 Highland Road. It is sponsored by the Hartland Consolidated Schools' Community Education program. Its mission, in cooperation with the surrounding communities, is to provide for the physical, emotional, educational, and economic well-being of older adults. The Senior Center offers aerobics, yoga, and sit-and-fit activities. Painting, photography, writing, ballroom dancing, tap dancing, line dancing and square dancing also are among the activities along with basketball, pickleball, and a sizable weight room. The senior center also has a women's chorus called Silver Chords, a barbershop quartet, and a group called Sage Productions that puts on shows.

Loose Senior Center

Loose Senior Citizen Center (LSCC) in Linden is a community-based nonprofit organization that is firmly committed to addressing the needs and interests of the rapidly growing population in the region who are 50 years and over. The Center was destroyed by a fire in 2011, but is actively working to rebuild to continue their mission to provide and coordinate programs and services that enhance dignity, support independence, and provide stimulating educational and recreational opportunities. LSCC is open to all segments of the population age 50 and over, including the very old, the disabled and those of limited means. Further, LSCC serves those who are part of the social support system for adults age 50-plus, such as family caregivers.



Tyrone Township, Livingston County, Michigan



School District

Fenton Area Public Schools
Hartland Consolidated Schools
Linden Community Schools

Surrounding Municipalities

Map 7 School Districts

Base Map Source: Livingston County GlS, 2006 Data Source: Michigan Geographic Framework, Michigan Center for Geographic Information, School Districts by County







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PARKS AND RECREATION

Community Description

Tyrone Township is a rural community of significant natural beauty. Residents enjoy living in quiet, picturesque surroundings. The Township's 2010 population is 10,020 people. The National Recreation and Parks Association recommend about 150 acres of total park land to serve a population around that size. Although the Township does not own or operate any parks and recreational facilities, its residents' needs are met by private facilities, parks and recreational resources in neighboring communities, and, in some cases, their own back yards.

The specific types of recreation desired by a community usually depend on the characteristics of the community's residents. Tyrone's population is older than that of many communities, with a median age of 42.4 years. 33.7% of the population is between the ages of 45 and 64. People in that age group tend to desire recreational amenities that let them experience nature and group activities where they can practice a skill, but they are not usually attracted to organized athletics and they do not usually have young children.

There are, however, almost 3,000 children under age 18 in the Township. The recreational needs of children and teenagers are different from those of adults. They tend to desire stimulating, active recreational areas and are more likely to participate in organized sports.

Looking to the future, these conditions are unlikely to change. Tyrone tends to attract residents who are later in their careers and looking for a home in the picturesque countryside. Therefore, the Township will continue to have a large percentage of people in the 45 to 64 age range and recreational amenities should target that group.

Existing Facilities

Although Tyrone does not own or operate any parks, there are several recreational facilities within the Township. There are four commercial recreation facilities:



- Tyrone Hills Golf Club, a golf course located at US-23 and Center Road
- Land 'O' Lakes Archery Club, which offers archery classes and tournaments for youth and adults.
- The Preserve, a cluster residential development that includes a tournament quality golf course designed by the Arnold Palmer Company.
- Tradin' Paint, a paintball course at White Lake Road and Old U.S. 23.

Additionally, the Shannon Nature Sanctuary is a 19 acre parcel east of South Ore Creek that is owned by the non-profit Michigan Nature Association.

Tyrone residents also frequently use amenities and recreational programs in neighboring communities, which is part of the reason that residents have not expressed interest in more parks within Tyrone itself.

Fenton, Linden, and Fenton Township are served by the Southern Lakes Parks and Recreation Association. That organization operates many recreational programs for all ages, including sports leagues, educational opportunities, art and music classes, and other activities. SLPR also operates aquatic programs and swimming lessons at the Fenton High School Pool. Special events are scheduled throughout the year.

There are many parks in the Fenton/Linden area that are available to Tyrone residents. The following parks offer active recreation including ball fields, playground equipment, tennis courts, basketball courts, and other amenities:

- Bush Park
- Conklin Park
- Fenton City Hall/Gazebo
- Franklin Adams Park
- Linden Park
- Rackham Park

Other facilities offer natural amenities such as hiking trails and overlooks:

- Dauner-Martin Nature Sanctuary
- Shiawassee Riverwalk

Public access to several lakes is also available, and several lakefront parks, including the following offer waterfront amenities:

- Fenton Township Parks
- Clover Beach
- Millpond Park
- Silver Lake Park

In the southern part of the Township, recreational amenities in Hartland Township are conveniently located. Hartland Township has two parks – Spranger Field and Winegardner Field, which both feature ball fields. A new park north of M-59 is under construction with 10 soccer/lacrosse/football fields. Schools in Hartland Township also have recreational amenities available. The Hartland Area Youth Athletic Association runs leagues in football, baseball, softball, basketball, and cheerleading.

Rose Township, to the east of Tyrone, features Rose Oaks Park, an Oakland County park at the corner of Rose Center and Fish Lake Roads. Rose Oaks includes a picnic area, hiking trails, and other natural recreation.

Deerfield Township, to Tyrone's west, operates the Deerfield Nature Area, which focuses on preserving natural features and ecosystems. Hiking trails through the preserved woods are popular.

Additionally, regional facilities such as Kensington Metropark, Indian Springs Metropark, and Huron Meadows Metropark, are all located within an approximate 20 mile radius of Tyrone. The metroparks provide opportunities for swimming, boating, fishing, picnicking, golf, hiking, cross-country skiing, sledding, and fishing. Several state parks, including Seven Lakes State Park, Island Lake State Recreation Area, and Holly State Recreation Area are also within easy driving distance for Township residents.

Parks and Recreation Goals and Priorities

Results from the 2011 Master Plan Visioning session revealed that Tyrone residents place a high priority on creation of trails and open space for recreation and natural amenities. Livingston County has just completed its first Recreation and Open Space Plan, which addresses public land and facilities throughout the county. In 1999, Tyrone Township completed a Parks and Recreation Master Plan. That Plan recommended creating a Parks and Recreation Board, acquiring land for parks, and developing new recreational amenities. Those recommendations never came to fruition and today there is little need or public support for acquisition of public park land by the Township or the creation of a formal Parks and Recreation Board.

Several priorities were supported by the Planning Commission and public input, as outlined below:

• The Township should participate in the expansion of the Livingston County Greenways system. There is the desire to provide pedestrian linkages between open spaces throughout the community. Whenever practical, the Township should collaborate with others to connect open spaces, parks, greenways and other public places with pedestrian and bicycle access routes, including working with the County and other regional groups. The Township will also encourage private developers to provide for pedestrian friendly facilities within the new developments in the Township. The Livingston County Recreation and Open Space Plan designated four County Greenways to run through Tyrone Township – the ITC Corridor Greenway, the Faussett Road Greenway, the North Ore Creek Greenway, and the Stearn's Lake Greenway.

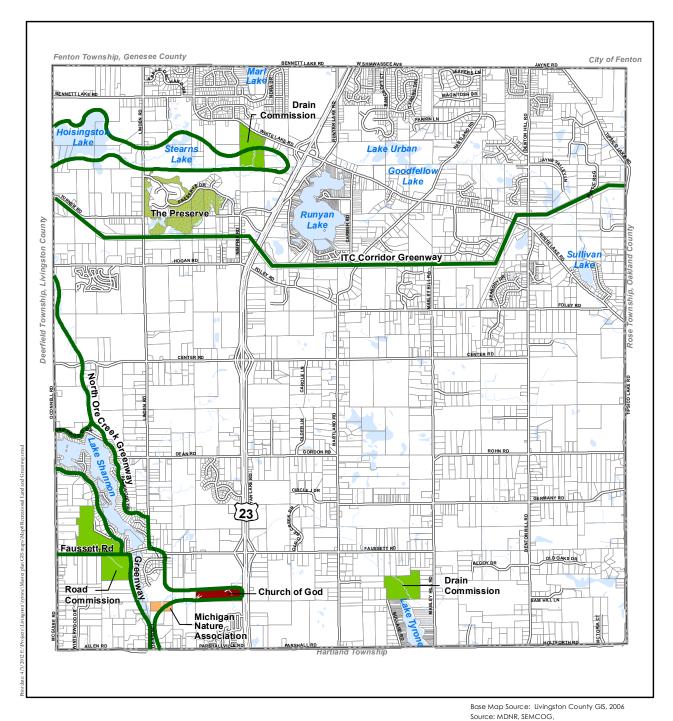
In addition to greenways, Tyrone Township also features several other types of recreation. The community's many lakes are beloved by residents, especially those that live along them. Keeping the lakes clean and healthy is a Township priority.

Another priority is the preservation of open space. Open space can be used as a
recreational amenity as well as preserving ecosystems and natural beauty. Many
Township residents own large lots and enjoy recreation in a natural environment within
their own property. Zoning and other initiatives to preserve open space are an
important part of the Township's recreation strategy.





Tyrone Township, Livingston County, Michigan



Legend

Other Public Land Land Trust Conservation Private Open Space **Golf Courses Future Greenways**

Map 8 **Recreational Land and Greenways**

Livingston County Department of Planning January 2012





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PARKS AND RECREATION PLAN

The Township does not plan to acquire new land for parks or create a Parks and Recreation Commission, but will collaborate and cooperate with neighboring communities and Livingston County to provide recreational amenities and programs for its residents. Tyrone will also work to assist residents and businesses to preserve the community's natural beauty on both public and private property. This includes the protection and preservation of the Township's lakes and streams.

The Township will support the County in completing the planned greenways through the community, which include:

ITC Corridor Greenway: Consumers Energy owns land under the ITC electric transmission lines running from west to east through Tyrone Township. Because of the company's ownership, this open space will be preserved and has been targeted for a trail or pathway. The existing land would provide the right-of-way, meaning land acquisition costs would be very small. The greenway would continue west from Tyrone Township, through Deerfield Township to the Oak Grove State Game area, then further west through Cohoctah Township.

North Ore Creek Greenway: The Livingston County Greenways includes a green buffer that surrounds North Ore Creek in the southwest portion of the Township. The idea was initially proposed in Tyrone's 1999 Parks and Recreation Master Plan. The proposed greenway would follow North Ore Creek from Hoisington and Bennett Lakes south through Hartland Township to Kensington and Island Lake State Recreation Areas near Brighton. From there, the trail would allow connections to other greenways and pathways extending throughout Southeast Michigan.



Faussett Road Greenway: Livingston County has planned a greenway and trail along Faussett Road. The greenway would begin at the western edge of Deerfield Township, at the Oak Grove State Game Area. From there, it would follow Faussett Road east into Tyrone, where it would curve south along the west side of Lake Shannon, finally connecting with the North Ore Creek Greenway near the corner of Cullen and Dwyer Roads in Hartland Township.

Stearn's Lake Greenway: The Stearn's Lake Greenway is a planned loop around Hoisington Lake, Stearn's Lake, and other smaller bodies of water in northwestern Tyrone Township and northeastern Deerfield Township. The greenway could connect to the ITC Corridor and/or the North Ore Creek Greenway depending on the final design plan.

In general, Tyrone's residents are well served by private recreational facilities and amenities in other communities. For this reason, there is little need for the Township to focus on developing new parks within its boundaries. However, development of the greenways proposed to run through the Township is a priority to improve resident access to the community's natural beauty and offer opportunities for non-motorized transportation.

FINDINGS AND CONCLUSIONS

Faced with the probability of comparatively slow population growth over the next 20 years, Tyrone arguably currently has adequate community facilities and services. It has a sanitary sewer system to help attract commercial development along the U.S. 23 corridor. It has police and fire protection. It has a sufficient Township Hall, and while it lacks a library, post office, and adequate recreational opportunities those services are available close by, consistent with a rural community environment. The Township is well served by quality school systems from neighboring communities.



CREATING A VISION OF TOMORROW

The participation of residents, elected and appointed officials, and community business leaders is essential to ensure the success of the Master Plan. When the Plan has the support of a wide community base, it will more likely be used and referenced in day-to-day planning activities. An effective way of building a comprehensive community base is by building consensus through the community visioning process. The Tyrone Township Planning Commission conducted a community visioning workshop on October 22, 2011 to assess public attitudes and ideas regarding the present and the desired future direction for Tyrone Township and its Plan update. Approximately 35 people attended the Saturday morning workshop.

The visioning workshop includes small group forums where community stakeholders discuss planning related issues and decide on the relative importance of the issues, thereby establishing priorities for implementation. The community stakeholders attending consisted of residents, elected and appointed officials, business owners, land owners and other interested parties. During the workshop, Township representatives presented data summarizing the state of the Township and key findings from the 2010 Census and Master Plan data analysis.

Following the presentations, attendees participated in a Land Use Preference survey illustrating different types of buildings and land use. Slides with images of different land uses in and outside the Township were shown. Attendees were asked to rate each slide, on a scale of -5 to +5, in response to the question "how appropriate are the characteristics of that building/land use, now and in the future, for Tyrone Township?" The purpose of this exercise was to assess the visual character that residents desire in their community.

Small group brainstorming sessions were convened after the Land Use Preference survey was completed. Attendees were invited to join one of six small group discussion topics for brainstorming, as follows:

- Natural, Historic and Cultural Resources
- Residential
- Public Services
- Recreation and Open Space
- Infrastructure Improvements and Maintenance
- Economic Development Commercial and Industrial

Each small group discussion lasted approximately 20 minutes. Workshop attendees had the opportunity to participate in three different discussion groups, and thus brainstorm on three different topics. By sharing their experiences about the various issues, the stakeholders had the opportunity to build an understanding of the importance of the issues to their community.

The Table Host for each discussion group recorded all the comments made within each discussion session. Each discussion group was asked to create a list of up to three priority

comments on their selected topic that they most wished to share with the Planning Commission and the larger assembly. At the end of each 20 minute discussion session, the comments were posted on a wall, by topic, for all participants to see. After all the small group discussion sessions were complete, the Table Hosts reported the conclusions on each topic to the assembled attendees.

Residents and stakeholders concluded the workshop with a better understanding of their fellow residents and with a mutual interest in the community Comprehensive Plan. As the residents shared their thoughts with others, they had a greater vested interest in seeing the issues addressed, in overall understanding of the planning process in general, and a genuine concern in seeing their community Comprehensive Plan succeed.

The visioning results have been compared to the 2002 Plan's goals and objectives for incorporation in this Master Plan update. This chapter reflects the public's comments from the visioning process, along with other public input for the Tyrone Township Master Plan update.

Residential Development

Goal: Permit development of well-planned, safe, balanced and pleasant residential environments while including development of senior citizen housing. Maintain the Township's emphasis on preservation of open spaces and the rural character during development of new housing. The Township should work to discourage development of uses that will generate large amounts of traffic, create pollution of the natural environment and be otherwise intrusive to the rural character and heritage of the Tyrone community.

- 1. Promote development of affordable and varied housing alternatives for senior citizens and others requiring such accommodations in order to permit residents to remain within the Township.
- 2. Encourage environmentally friendly and aesthetically pleasant housing developments that enhance the open space and rural character of the Township using techniques such as:
 - Cluster housing
 - Creation of attractive, integrated on-site detention with landscaping so that storm drainage basins appear as a natural part of the environment
 - Installation of underground utilities.
- In locations with sufficient utilities, transportation and public services, provide for quality condominium and mixed density housing developments to integrate a mix of uses which could include small neighborhood services and recreation opportunities, in a well-planned context and be linked with transit.

- 4. Develop safe, quality housing in an environment that does not include disruptive intrusive land uses such as casinos and landfills.
- 5. Support the retention of most of the Township as a rural, low density, high quality residential area.
- 6. Strive to achieve proper transitions between residential and non-residential land uses to protect residential uses from incompatible land uses or require ample buffer zones to alleviate incompatibility.

Recreation and Open Space



Goal: Create recreation facilities to enhance the natural beauty of the abundant wetlands, woodlands and topography in the Township. New recreation facilities should provide both passive and active recreation opportunities for the existing and developing residences in the community and work to achieve an integrated design for recreation facilities in the midst of residential neighborhoods.

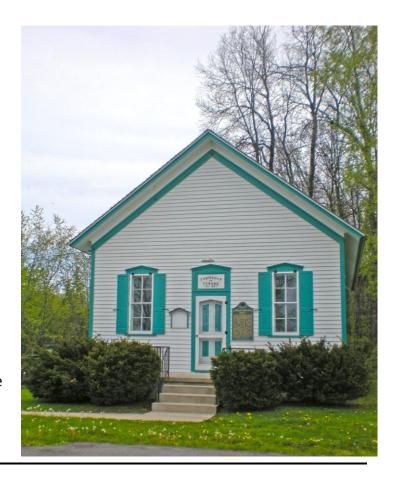
Objectives:

- Capitalize on opportunities to cost-effectively use, obtain or secure parkland in order to permanently preserve environmentally sensitive areas with unique and attractive natural features, and create preserved greenways and waterways. Seek resources such as grants and donations to enable the acquisition of land.
- Promote passive recreational opportunities, such as walking and biking trails along greenways and waterways, and provide pedestrian and non-motorized linkages within a comprehensive, planned regional system. Work with public and private entities to utilize resources such as power line corridors, expanded pavement in the road rights-of-way, and participate with Livingston County and other agencies.
- 3. Continue to encourage cluster residential development as a means of open space preservation.
- 4. Educate the public and property owners on the value of preserving open space, and provide information to residents about recreation facilities and services, such as the library and senior center facilities.
- 5. Catalog all open spaces in the Township and prioritize land most desirable for preservation.

Natural, Historic and Cultural Resources

Goal: Protect the natural, historic and cultural resources of the community in recognition that those are the defining elements of the Township that make Tyrone a unique location where woodlands, wetlands and rolling hills blend with historic settlement patterns typified by the Parshallville area.

- Encourage the preservation and maintenance of the significant, existing woodlands in the Township.
- 2. Preserve wetlands in the Township by enforcing existing regulations to require setback buffers around state regulated wetlands.



- 3. Create greenways in the Township, located in concert with those woodlands and wetlands protected and preserved by state and local regulations, and as planned by Livingston County. Such greenways could be located along environmentally sensitive routes like the Ore Creek corridor.
- 4. Require installation of underground electric power and telephone lines wherever possible, in order to avoid the obliteration of the Township's natural beauty with a forest of utility poles and wires.
- 5. Adopt and enforce strict sign regulations to avoid sign chaos cluttering the scenic horizon.
- 6. Provide programs and ordinance support, in cooperation with adjacent communities, to preserve the existing historic places, sites and buildings in the community like the settlement of Parshallville and places of cultural significance.
- 7. Continue to encourage planned residential, and cluster development and preservation of open spaces to enhance significant topographic features, wetlands and watercourses, aquifer recharge areas, and other natural features in the community.
- 8. Take reasonable steps within the Township's purview to prevent surface and ground water pollution, contamination of the soils, air pollution, light pollution, and noise pollution.
- 9. Consider regulations to:
 - Protect the riparian rights of land owners along the waterways in the Township.
 - Protect the ground water and implement requirements for submission of ground water impact studies when development threatens the resource.
 - Buffer the roadsides to protect scenic routes and view corridors.
- 10. Encourage the preservation of existing farmland by utilizing legal mechanisms such as the transfer or purchase of development rights.

Public Services and Amenities

Goal: Provide for appropriate public services and amenities to enhance the quality of life in the Township and protect the investments of individuals and businesses with necessary protective services.

- 1. Monitor emergency services delivery capabilities so that fire, police and EMS services are available to all Township residents to protect the public health, safety and welfare.
- 2. Expand the use of the existing public sewer services in order to encourage safe, orderly development and protect ground water quality. Encourage appropriate types of planned

higher intensity development to be concentrated within the sewer service area, and do not expand the system unless privately funded by developer(s) or essential to remediate failing residential systems.

- 3. Explore cost-effectives means to achieve and provide for adequate community facilities, services, and infrastructure such as walking trails, trash pick-up, and improved roads.
- 4. Consider consolidation of trash pickup services to reduce the number of trash trucks on the Township roads and to concentrate the days for trash pickup in each neighborhood.

Infrastructure

Goal: Provide for public utility network improvements and transportation necessary to support the current population and to provide future improvements in locations best suited for development to support carefully planned and managed growth while avoiding installation of facilities that will encourage development in areas where the community does not desire to promote development.

- 1. Utilize the future land use plan to guide decision making for provision of sanitary sewers and other necessary utilities in those areas, particularly in the U.S. 23 corridor, where nonresidential and residential development on smaller lots is intended to occur.
- 2. Establish a program to pave and maintain roads in the Township to provide for safe movement of people and goods in automobiles.
- 3. Support Complete Streets practices and policies, encouraging the roads in the Township to form a comprehensive and integrated transportation network; promoting safe, equitable and convenient mobility for all potential users, including pedestrians, bicyclists, motor vehicle operators, and people of all ages and abilities, while preserving flexibility, recognizing community context and using appropriate guidelines and standards.
- 4. Reevaluate truck routes to reduce existing intrusions into residential areas by truck traffic and to avoid such intrusions in the future.
- 5. Create a system of access management through regulations in the Zoning Ordinance and coordination with the Livingston County Road Commission to control the location of driveways and new streets so as to avoid creation of traffic hazards and to eliminate existing hazards where possible.
- 6. Establish regulations to require preparation of traffic studies when new development will significantly impact the existing traffic flow characteristics in the community.

Commercial Services

Goal: Permit carefully planned and attractive multiple-service commercial development for use by the community in a few selected locations in the US 23 corridor, designed to protect the rural character of the community and to avoid individual "spot" site development for numerous small facilities like gas stations, fast food restaurants, and convenience stores. Such planned commercial developments must provide substantial yard setbacks with preservation of existing vegetation and installation of new landscaping to create soft visual buffers along the edges of commercial facilities while avoiding intrusions into residential areas by commercial traffic, sights, sounds and smells.

Objectives:

- 1. Permit development of carefully <u>planned</u> commercial centers with a clearly defined set of limited uses including locally useful facilities such as:
 - Health clubs
 - Destination standard restaurants
 - Local service uses like hair styling salons, barber shops and clothing shops
 - Food stores and delicatessens
 - Medical, dental and other professional offices
- 2. Create regulations in the Zoning Ordinance to require installation of substantial landscape buffers adjacent to the perimeter of new commercial facilities.
- 3. Establish provisions in the Zoning Ordinance to encourage preservation of existing vegetation to assist in the maintenance of a rural atmosphere while providing natural screening for new facilities.
- 4. Encourage development of neighborhood community facilities in order to provide convenient services at select locations and avoid a proliferation of many scattered commercial facilities.
- 5. Require commercial developers to maintain the rural character of the Township through the use of landscaping, buffering and natural features preservation, and well maintained sites.
- 6. Provide adequate Township administrative ability to enforce nuisance laws.
- 7. Permit limited neighborhood convenience uses near intense residential development, and create standards to ensure that these facilities use high quality materials and design features such as brick or masonry facades, ample windows, peaked roof elements and similar architectural elements that are in context with the surrounding residential and rural environment.

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8. Large-scale commercial uses should be limited to the west side of the U.S. 23 corridor, and only permitted if supported by sufficient market evidence, utilities and transportation infrastructure, public services and if located in a planned development with protection of the overall desired rural character of the community.

Industrial Development

Goal: Promote well-located, planned, attractive and diverse industrial development such as light industry and research and development, and permit a small amount of warehousing and distribution facilities. Protect the sensitive relationship between industrial and residential land uses by requiring substantial yard setbacks for industrial facilities, and require preservation of existing vegetation and planting of new landscaping to create soft visual buffers along the edges of new industrial facilities while avoiding intrusions into residential areas by industrial traffic, sights, sounds and smells.

- 1. Promote the development of carefully restricted planned light industrial parks with a specific set of limited uses.
- 2. Create regulations in the Zoning Ordinance to require installation of substantial landscape buffers adjacent to the perimeter of new industrial facilities.
- 3. Establish provisions in the Zoning Ordinance to encourage preservation of existing vegetation to assist in the maintenance of a rural atmosphere while providing natural screening for new facilities.
- 4. Encourage development of combined research and office parks in a campus-like setting.
- 5. Limit industrial development to the west side of the US 23 corridor area.
- 6. Through the use of landscaping and natural features preservation, encourage industrial developers to maintain the rural character of the Township.
- 7. Utilize existing sanitary sewer facilities for the collection and disposal of waste to avoid pollution of the community's soil and water resources.
- 8. Provide adequate Township administrative ability to enforce nuisance laws.



INTRODUCTION

Thirteen different land use categories are included in this Future Land Use Plan. In several instances the phrases "planned environment" or "planned development" are used to describe land uses contemplated for Tyrone. Additionally, several of the land use classifications include the word "Planned" in the classifications' names. That phraseology is intended to convey the Township's intentions to work with private or public developers to create planned unit developments consistent with the provisions of the Michigan Zoning Enabling Act and the local Zoning Ordinance.

The descriptions of the uses sometimes describe design characteristics and site amenities that are determined to be desirable. Those descriptions invite the creation of Zoning Ordinance regulations or planned unit development agreements to assure the resulting sites will be consistent with the descriptions envisioned in this volume. The different land use categories included in this plan are described later in this discussion.

OPEN SPACE PRESERVATION

Tyrone Township has an established policy of open space preservation. Open space regulations were initially encouraged in the adopted 1994 Comprehensive Plan and enacted in the Zoning Ordinance adopted in 1997. The basic intent is to provide open space as an integral component of development. The Township adopted formulas in the Zoning Ordinance to require open space at a rate of one acre of open space for each two acres of developed land in the agricultural and low density residential areas. In the higher density residential areas, open space was required at the rate of one acre for every four developed acres.



The Township continues to be dedicated to preservation of open space, particularly in accordance with its program that has been pursued since 1997. The Planning Commission also recognizes the obligation in the Zoning Enabling Act to provide open space in cluster development for all residential land zoned for development at 2 or fewer dwellings per acre where no public sanitary sewers exist and 3 or fewer dwellings per acre with public sewers. As required by the State of Michigan, the Zoning Ordinance provides a cluster option for residential development, if open space is preserved equal to at least 50% of the total land area that is developed. Maintenance of the open space must be established in perpetuity.

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RESIDENTIAL/NATURAL RESOURCES PRESERVATION USES

As noted on the Opportunities and Constraints Map, Tyrone possesses a wealth of significant natural resources and features. These include woodlands, wetlands, natural water bodies, and areas with steep slopes and scenic vistas. The Future Land Use Plan's Residential/Natural Resource Preservation designation is located in areas that possess one or more of these significant natural features. It is intended to allow residential development at the very low density of a minimum of 3 acres per dwelling unit. Residential uses will be developed in a planned manner that preserves the attractive natural features of Tyrone Township.

AGRICULTURAL/RESIDENTIAL USES

Residents of several areas of the Township continue to enjoy a rural lifestyle where agricultural uses thrive. In this type of setting, this plan encourages the maintenance of agricultural uses in a comfortable combination with large lot residences. These areas will typically be located adjacent to Low Density Residential areas as described below. The density in these areas will be 3 or more acres per dwelling unit.

The Future Land Use Map differentiates Agricultural/Residential from Residential/Natural Resources Preservation based on the characteristics of the natural landscape. Land that is most suitable for agriculture is included in Agricultural/Residential, while land that should be protected due to its natural beauty is included in Residential/Natural Resources Preservation.

OTHER RESIDENTIAL USES

Each of the following residential densities could be permitted to develop within or outside of a planned environment.

Low Density Single Family Detached Residential. This category will permit single family residential development at a density of 1.5 to 3 acres per dwelling unit. This designation can be found in portions of the southeast part of the Township, where residential uses are appropriate but higher densities are not advisable due to infrastructure concerns.

Medium Density Single Family Detached Residential. This classification is intended to provide a transitional residential density between Low and High Density Residential. Lots will generally range from 0.5 acre to 1.5 dwelling This acres per unit. designation has been applied to land in around existing residential subdivisions and near planned commercial areas. Medium density development should be encouraged to locate near areas that already have the infrastructure and amenities to support it.



Medium Density Single Family Detached Residential-Lakeside. Existing single family lots smaller than 0.5 acre surround much of Runyan Lake. The Planning Commission does not intend to permit additional development of that higher density around Runyan Lake. All the land around Runyan Lake is indicated as a special category of the Medium Density Single Family designation. It is intended that existing homes surrounding the lake should be accommodated and permitted to be maintained by the Township's



land use regulations. Zoning regulations for this area should permit maintenance of the existing homes around the lake while avoiding an excessive burden for public services demanded by new development on lots less than 0.5 acre. Vacant land around the lake should generally be developed with 0.5 acre to 1.5 acres per dwelling unit.

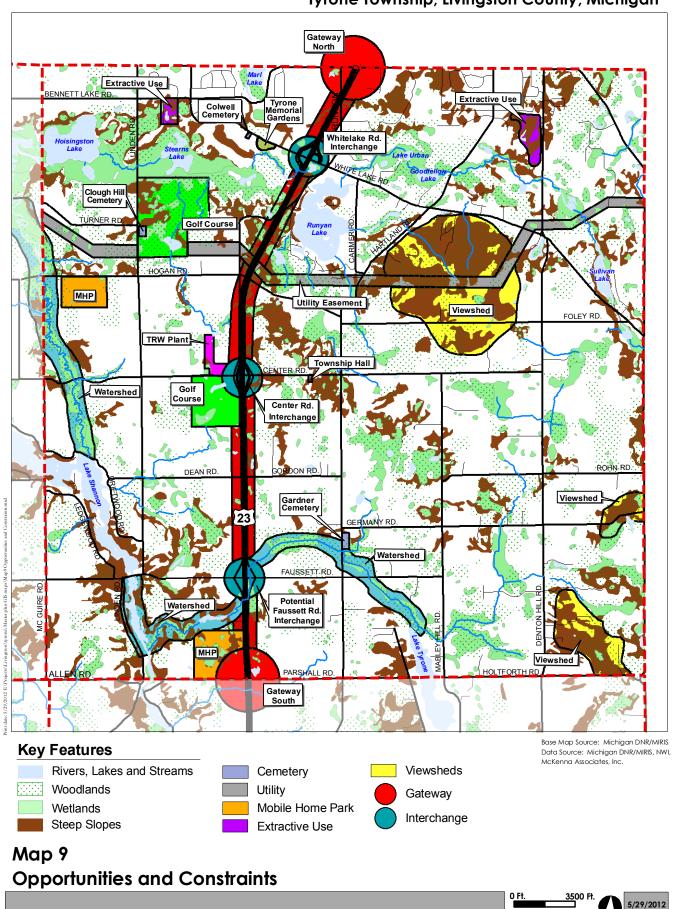
High Density Attached Residential. Various housing types have been included in the High Density Attached Residential designation with a density of up to eight dwellings per acre. Planned attached condominiums and apartments are included in this category. It is also possible that clustered single family homes could develop in these areas. Because of the intense nature of such development, it is generally expected that homes developed in the High Density Attached Residential classification will be located in the Township's sanitary sewer district or serviced with an approved private sanitary sewage disposal system. The Future Land Use map designates areas along Hogan and Linden Roads near the Planned Industrial Research Office area and near existing residential subdivisions in the area of the U.S. 23/White Lake Road interchange for High Density Attached Residential.

Manufactured Single Family Detached Residential. This designation recognizes developments built under the State of Michigan regulations governing manufactured housing parks. Two areas are included in this classification. A manufactured housing park exists in one of the designated areas on the south side of Hogan Road, west of Linden Road, and another such park exists at the northwest corner of Parshallville Road and Old U.S. 23. No additional land area for this use is contemplated in the near future.

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McKenna ASSOCIATES

Tyrone Township, Livingston County, Michigan



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Table 18: Permitted Residential Density			
Future Land Use Classification	Acres/		
	Dwelling Unit		
Agricultural/ Residential	3.0 +		
Residential/ Natural Resources Preservation	2.0 to 3.0		
Low Density Single Family Detached Residential	1.5 to 3.0		
Medium Density Single Family Detached Residential	0.5 to 1.5		
Medium Density Single Family Detached Residential – Lakeside*	0.5 to 1.5		
High Density Attached Residential	0.125		
Manufactured Single Family Detached Residential	0.11		

^{*} Existing lots may be < 0.5 acres per dwelling unit.

NONRESIDENTIAL USES

Most uses in this category do not include dwellings. However, in certain instances, higher density residential uses or a special purpose residential use may appropriately be located in conjunction with nonresidential uses as further specifically described below.

Most of the Township's nonresidential uses are intended to be located within the framework of planned unit developments. Michigan's planning and zoning statutes provide municipalities with the ability to create tools for planned unit development (PUD). The Township's zoning regulations provide for a PUD to include more than one land use, or to be a single use development. The proposed Planned Office, Planned Commercial Services, Planned Commercial Industrial, and Planned Industrial Research Office classifications provide for nonresidential development within the context of planned unit developments. The overall standards for PUDs are described in the following discussion.

Overall Regulations for Planned Development. The Township will encourage the use of planned unit development (PUD) techniques for sites and buildings in the proposed Planned Office, Planned Commercial Services, Planned Commercial Industrial, and Planned Industrial Research Office designated areas. Development in those areas will be designed so that the following objectives are accomplished:

- 1. Green open spaces shall be visible from the adjacent road right-of-way serving the site and from adjacent lower intensity use sites.
- 2. Buildings should be grouped into campus settings with lawns, open space, and walkways encouraging pedestrians to stroll between buildings.
- 3. Pedestrian access shall be provided throughout the developments. Sidewalks and pedestrian paths must be created to carry pedestrians from automobile parking lots to buildings. Routes must be planned and provided to move pedestrians and nonmotorized vehicles (such as bicycles) between adjacent buildings and sites.

- 4. Natural vegetation existing on the site will be preserved as much as possible. When some vegetation must be removed or where a site has been previously cleared, the developer shall provide plantings to assure that the site will be an attractive amenity to the community and will present a pleasing appearance from nearby sites and roads. The end result will be lush vegetation to complement the proposed structures on the site.
 - As much as possible, the vegetation must be carefully selected to include varieties that are native to Michigan. Commercial development proposals often include some varieties of trees and shrubs because those varieties provide minimal screening. For example, Skyline locust and Little Leaf linden trees provide very little screening benefit and are inappropriate trees for use as visual screens. The Township will not permit the overuse of any varieties of landscape materials.
- 5. Buildings on the site shall utilize building materials that include brick, stone, and wood in combination with other customary building materials. The structures shall be constructed so as to become a source of pride for the community. It is intended that the new development will establish a consistent theme or adhere to a theme previously approved by the Township. The scale and size of the development shall be appropriate for location in a rural community and will blend harmoniously with other development in the Township.
- 6. Parking areas will be carefully incorporated in the plans so as to avoid a wide expanse of parking lot separating commercial structures from the fronting roads. Landscaped yard spaces and islands shall be placed so as to break up the expanse of large parking lots.
- 7. Automobile traffic associated with the site will be managed so that only necessary vehicle drives and streets are constructed. Wherever practical, joint access drives and streets will be used in order to avoid unnecessary disruption of the natural environment, avoid excessive storm drainage runoff, minimize disruption of the existing traffic flow and to provide economical access solutions.
- 8. It is intended that new development shall extend outward from existing development nodes. New development will avoid extensive "leapfrogging" over many acres of undeveloped land adjacent to existing development sites. Excessive extensions of public utility service facilities will be avoided and existing services will be utilized as much as possible. However, the Commission recognizes that in a competitive real estate market, circumstances and property owners' expectations can result in vacant lots waiting for the right combination of seller, buyer and use. This plan does not intend to prohibit development of land on an otherwise developable site due to the existence of a single adjacent, vacant parcel.

Planned Office (PO). Office uses to be permitted in the Planned Office classification are intended to provide facilities for national and regional business headquarters facilities, administrative, financial and other similar office uses in a PUD environment. Insurance

companies, banks and other financial institutions, law firms, engineers, architects and other similar professions will all be welcomed in the Tyrone Planned Office areas. Office uses that also demand warehouse space on the same site will not be permitted in this classification.

These uses are intended to be developed in a planned development setting. Efforts will be made to provide the business users with pleasant accommodations that are conveniently located with excellent access to the Southeast Michigan transportation network via the U.S. 23 freeway. The buildings housing the uses must be carefully designed to permit the office users to enjoy the local environmental features in a campus-like setting. Planned Office uses are proposed south of Center Road near the interchange with U.S. 23.

Planned Commercial Services (PCS). Commercial retail and service uses are intended to be located in a PUD environment. The uses may be individually sited in freestanding buildings, clustered in a larger commercial structure housing several uses under one roof such as a shopping center, or contained in a mixed use building on a floor below any residential uses.

It is recognized that new commercial uses may serve the Tyrone community or the travelers on U.S. 23 or both the community and highway travelers. The uses in this category require good access and are planned for locations abutting major thoroughfares. Local streets and residential neighborhoods are not appropriate locations. Regardless of whether the use is local or regional in scale, the site and attendant site facilities to service the use must be constructed consistent with the guidelines specified for planned development. The Future Land Use Map calls for Planned Commercial Services near the Center Road/U.S. 23 interchange, and also a small area along Old U.S. 23 near Dean Road.

Planned Industrial Research Office (PIRO). The U.S. 23 corridor is a desirable location for enterprises that require facilities to house research laboratories, design studios, technology oriented product development, prototype manufacturing and similar light industrial and laboratory uses that require a substantial office adjunct on the same site. This classification is intended to provide a location for those types of uses. Occasionally such uses may also include packaging and light assembly operations. Warehousing, assembly, and fabrication may be permitted in the PIRO classification when the uses are appropriately located and designed to be an attractive neighbor for other nearby uses. The Township also recognizes that some enterprises may require some light assembly operations or product packaging on the PIRO site. However, the primary utilization of floor area will be for purposes other than product assembly and packaging.

Overall, the facilities to be developed in such a use-group will be designed to provide an attractive, landscaped site and a pleasing corporate identification for the company housed on the site. Where possible, the uses will be developed in a professional business park setting. Typically, such business parks are platted subdivisions or site condominiums with carefully drafted deed restrictions and park association bylaws. The development would be designed to accommodate truck traffic and employee parking areas while retaining an attractive appearance from adjacent sites and roads. Loading and unloading areas will be screened and concealed to the rear of structures or in screened side yard areas.

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The design of these facilities will be carefully reviewed so as to control the impact from the sites on the remainder of the community. When a site is developed independent of a professional business park, it should be well-landscaped with appropriate screening in order to provide compatibility with other developing businesses in the area and the community as a whole. Truck traffic routes will be considered and planned so that other traffic in the Township is not unnecessarily impeded while the freight trucks are provided with reasonable paths to and from their destinations.

The Township intends that businesses established in the PIRO area will be attractive, clean corporate citizens. In particular, the Planning Commission intends that pollution sources such as air, water, noise, odor and light emissions will be controlled and will not become offensive to other land uses in the Township.

Planned Commercial Industrial (PCI). South of the area planned as PCI is land that has potential access to sanitary sewer, and while farther from the Center Road/US 23 interchange, has both good access via Old U.S. 23 and good visibility from the freeway. Along Old U.S. 23 south of Center Road, are several developed sites including Pennington Gas, Action Watersports, small industrial uses, and construction contractors, that are land extensive operations that could be characterized as heavy commercial or light industrial. The Planned Commercial Industrial plan category anticipates development of similar uses that do not need to be at an interchange, but do depend on traffic and paved primary road access. Development should be in a PUD environment with care given to generous landscaping, attractive high quality architecture and the appearance from the road, consistent with the character of the Township. Protections should be required during site plan review to minimize any negative impacts on the residential neighbors.

Commercial Recreation. The Commercial Recreation category was created for open space uses with commercial components, such as golf courses. These uses are not strictly preserved open space, but the locations are not appropriate for commercial development. The Future Land Use map designates the Coyote Preserve Golf Club as Commercial Recreation.

Public/Quasi-Public. This category includes a mix of uses that are often desirable transitional uses between residences and higher intensity nonresidential uses. For example, dedicated parks and public utility rights-of-way and churches are included in this category. Utility power easements consume a substantial amount of land in the Township and are also included in this category.

Special Planning Area. On the west side of the U.S. 23 interchange at White Lake Road is land with particular potential for PUD type development. This interchange provides access for much of the Township's higher density residential land, located in the northern portion of the township. It is just south of significant commercial and population concentration in Fenton and Fenton Township, and has potential for a variety of land uses if properly designed, with quality architecture and in harmony with the natural topography, surrounding land uses, and capability of the infrastructure. Ample screening, buffering and appropriate land use transitions must be

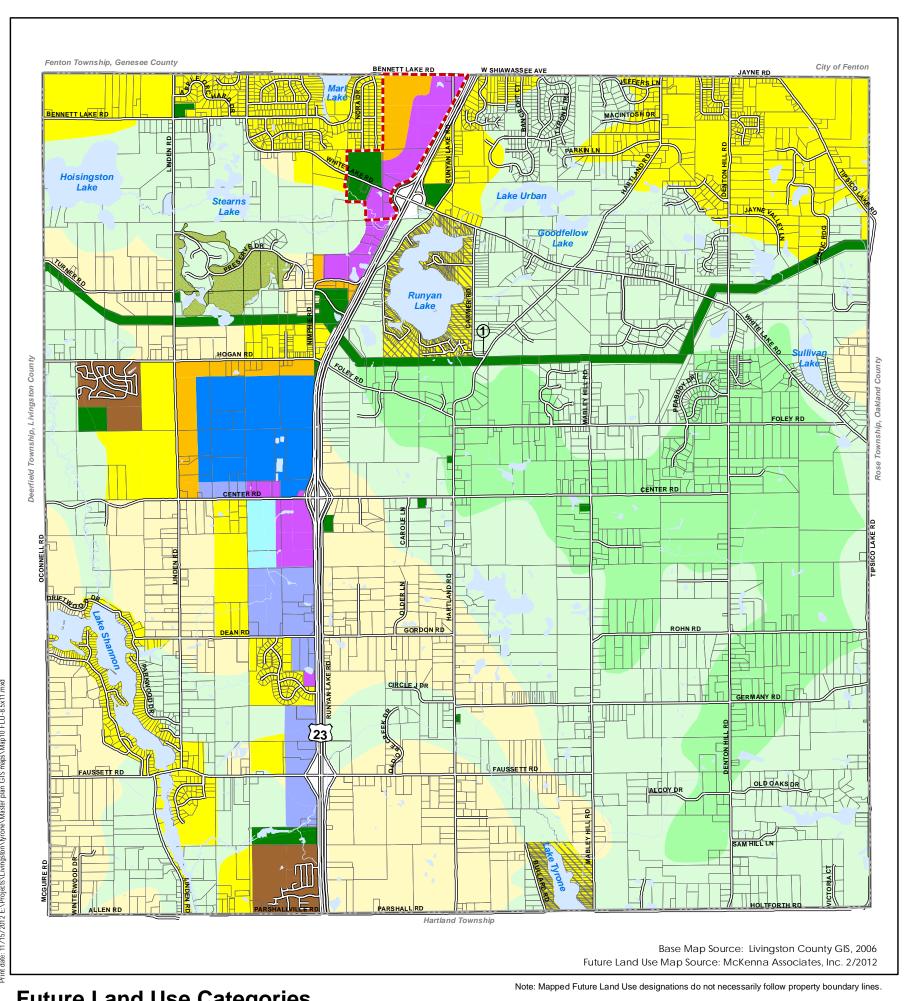
provided to avoid negative impacts to the single family residential uses to the west and north, and visibility from U.S. 23 should be selectively buffered so as to retain the attractive rural feel of Tyrone. Land uses could include commercial, office, higher density residential and special purpose facilities such as senior citizen housing, educational, public and quasi-public uses, and public and private recreation, all in a master planned PUD environment.



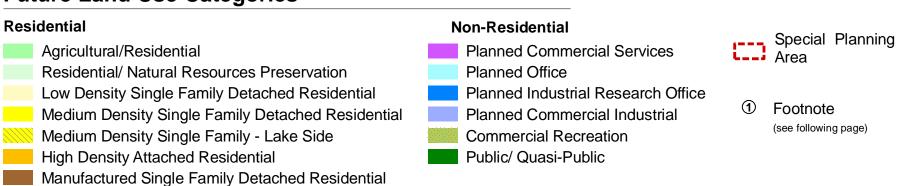
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Tyrone Township, Livingston County, Michigan



Future Land Use Categories



Map 10

Future Land Use



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Footnote to the Future Land Use Plan

1. This area is designated for Residential/Natural Resources Preservation land uses; however, the small nonconforming convenience store and gas station provides convenient service to its immediate neighborhood. This use helps create neighborhood character, and because it is a small, established retail use, it does not cause negative impacts to the surrounding residential area. This plan intends that this use should not expand or extend beyond its current boundaries, nor shall its existence be used as the rationale for rezoning other land for commercial purposes. Conditional rezoning to commercial could be considered if sufficient conditions were included to limit the use's impacts and protect the essential single family residential character of the area.

FUTURE LAND USE ASSIGNMENTS

The Future Land Use Map graphically describes the land use designations for Tyrone Township. The concepts and uses described herein are the result of long and careful deliberation by the Commission. Substantial input was received from Tyrone's citizens during the Visioning Session.

This plan provides specific assignments of the classifications created in the previous section. The designations provided herein and assigned in this plan shall be the basis for future land use planning in accordance with Michigan's Planning Enabling Act and the Zoning Enabling Act.

The following table lists the amount of acreage that is planned for each land use on the Future Land Use Map.

Table 19: Land Area of Future Uses					
Use	Acreage	% Total			
Agricultural/ Residential	3,327	14%			
Residential/ Natural Resource Preservation	9,307	40%			
Low Density Single Family Detached Residential	3,878	17%			
Medium Density Single Family Detached Residential	3,361	14%			
Medium Density Single Family Detached Residential	316	1%			
– Lakeside					
High Density Attached Residential	285	1%			
Manufactured Single Family Detached Residential	294	1%			
Planned Commercial Services	339	1%			
Planned Office	76	1%			
Planned Commercial Industrial	356	1%			
Planned Industrial, Research and Office	429	2%			
Commercial Recreation	165	1%			
Public/Quasi-Public	476	2%			
ROW	313	1%			
Water	632	3%			
Totals	23,555	100%			

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FUTURE LAND USE ASSIGNMENTS IN TYRONE TOWNSHIP

This section is divided into three parts: U.S. 23 Corridor, Township West, and Township East. The Township West section describes the future land uses west of Linden Road. The Township East section describes land that is primarily east of Hartland Road.

U.S. 23 CORRIDOR

North Corridor Area - White Lake Road Interchange. The Planning Commission has determined that the vicinity of the White Lake Road interchange should include a mix of land uses, and as such has designated the immediate area west of the interchange as a Special Planning Area. As described in the Existing Land Use Analysis, the interchange presently includes a variety of uses. This plan intends to provide for a reasonable set of uses, however, some of the current uses will become nonconforming if they still exist when the plan is implemented.

Planned Commercial Services (PCS) uses are planned as part of the Special Planning Area west of U.S. 23 to the north and south the interchange. This plan does not intend to encourage uncontrolled development of commercial facilities with little or no improvement to the infrastructure in the area. The Planning Commission and Township Board shall consider the ability of infrastructure in the area to support more intense use of the land before permitting rezoning and development of sites as recommended by this plan.



The existing residential subdivisions north and west of the Special Planning Area will be buffered from the Planned Commercial Services (PCS) uses by the church property along White Lake Road and with a transition of High Density Attached Residential near Bennett Lake Road (to the north) and near Nimphie Road (to the south). Development of the Special Planning Area will include ample screening, buffering and land use transitions for the nearby single family residential uses, and selective buffering of visibility of the area from U.S. 23 to retain the attractive rural feel of Tyrone.

A large portion of the North Corridor Area that lies west of the interchange and south of Stearns Lake is planned in the Residential/Natural Resource Preservation classification. This is due to its present use as a The Preserve community and golf course.

Central Corridor Area - Center Road Interchange. The map indicates that substantial additional land will be provided around the U.S. 23/Center Road interchange for nonresidential development. Most of the nonresidential development will only be permitted to occur if it is accomplished with the benefit of a Planned Unit Development (PUD) agreement.

Planned Industrial, Research and Office (PIRO) land utilization is encouraged on and around the TRW site. The plan provides for a transition in intensity of use by creating a "wrapper" around the west and north sides of the existing industrial site. As is noted in the Existing Land Use Analysis, the TRW facility is a light industrial use. It is appropriate to create a buffer or transitional use area between a high intensity use and lower intensity uses. More detail about the concept for this area is provided on Map 11 Center Road PIRO Area Plan.

The adjoining areas along Linden Road and Hogan Road are planned for High Density Attached Residential in order to create a mixed-use "center" for the Township and also to create a transition between the commercial and industrial uses and adjacent lower density and natural preservation areas.

Additionally, the plan recognizes the possibility that the Tyrone Hills Golf Course site may one day be used for some purpose other than outdoor recreation. If the site will be used for another purpose, the plan will permit those uses to be Planned Office (PO) and Planned Commercial Services (PCS). Planned Commercial Industrial (PCI) is planned south of the golf course fronting Old U.S. 23.



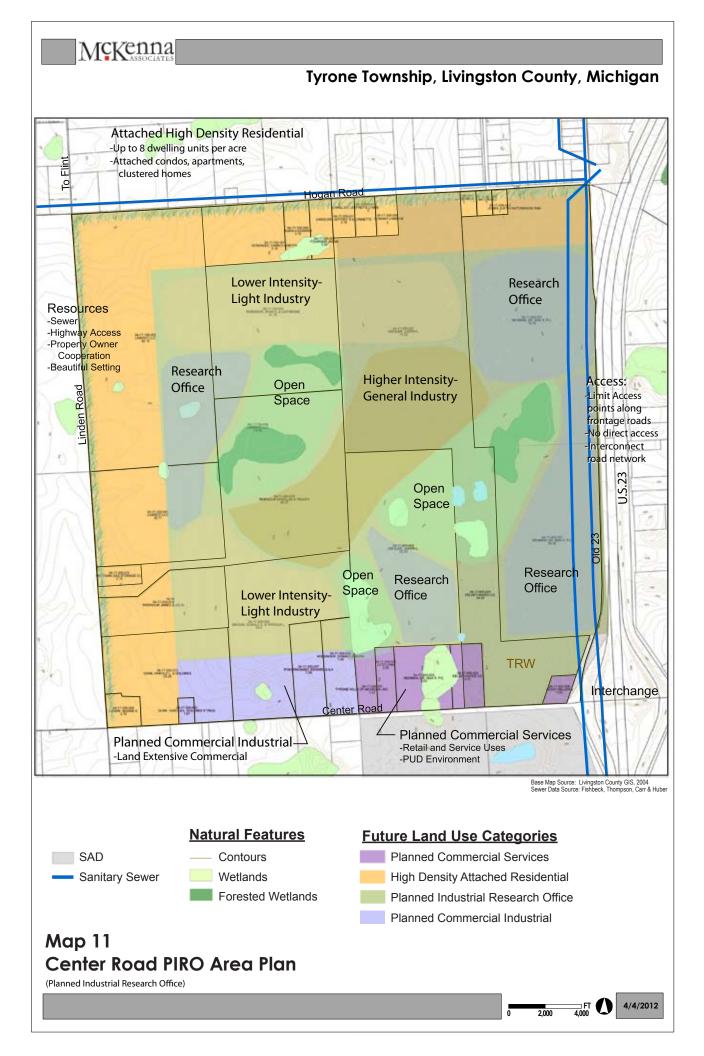
Public/Quasi-Public uses include the Township Hall on Center Road, the Clough Cemetery where Turner Road meets Linden Road, and the electric power transmission line that runs east to west, just south of Runyan Lake.

South Corridor Area. As is shown on the map, most areas in the corridor are intended to be retained for single family residential and residential/ natural resource preservation purposes. The plan also recognizes the existence of nearby residential development in the vicinity of Lake Shannon near Faussett Road. Along Old U.S. 23, much of the frontage is planned for Planned Commercial Industrial uses. This master plan category has been provided to take advantage of the visibility, sanitary sewer and road infrastructure in place. Development will credit important non-residential tax base and jobs for the township. Buffering will be required to protect developed residential uses from adverse impacts.

The Residential/Natural Resource Preservation areas in the south corridor include a watershed area that connects Lake Shannon with Lake Tyrone, and an area that has an abundance of natural features such as woodlands, wetlands, and natural slopes. A Manufactured Single Family Residential area (Cider Mill Crossing) is located on the northwestern portion of the intersection of U.S. 23 and the south boundary of the Township. This area provides a fair share of affordable housing to Tyrone.

The Township will not encourage installation of the freeway interchange at Faussett Road. It is the Township's intention to work within the existing expressway framework to permit development to occur in the Central and Northern Corridor Areas before new high intensity development is considered in this part of the community.

All other land in the South Corridor Area is designated for use as Low Density Single Family Residential purposes. Low density development will have the least adverse effects on the established low density single family uses scattered in the area. Additionally, such low density development will blend appropriately with the existing Parshallville settlement, effectively becoming an extension of the rural residential hinterland around the village.



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TOWNSHIP WEST

The western portion of the Township includes a significant amount of natural features. These include Hoisington Lake and its surroundings, Lake Shannon, the Ore Creek North and Ore Creek South watersheds, and several significant natural features west of Lake Shannon. These areas all received the Residential/Natural Resource Preservation designation. Two cemeteries on the west side are designated as Public/Quasi-Public land. The residential areas south of Center Road have been given the Low or Medium Density residential classifications. This pattern of density is either consistent with existing land uses, or is proposed in the future to create an effective transition from intensive uses at the freeway interchanges, to progressively less dense uses.

North of the ITC transmission corridor and in the vicinity of Turner Road, there is an area of Low Density residential uses planned. This area is surrounded by Residential/Natural Resource Preservation, Medium Density residential and the Preserve golf course Commercial Recreation area.

There are two clusters of Medium Density residential uses planned in the Township West area. The first is generally north of Bennett Lake Road and White Lake Road in the northern portion, and reflects the more intensive development of Fenton Township. The second is the area between Hogan Road and Center Road. This provides a transitional use between two intensive areas – the Center Road interchange, and the manufactured housing park along Hogan Road. This manufactured housing park in combination with another such park on the south end of the Township provides Tyrone with a significant amount of affordable housing.

The ITC transmission line passes through this portion of the Township near Turner Road and is designated as Public/Quasi- Public.

TOWNSHIP EAST

The eastern portion of Tyrone defines the Township's rural character and possesses the largest amount of natural features. Therefore it is intended to receive the least intensive development. The preservation of natural areas not only preserves the character and attractiveness of the Township, it also places less burden on Township services and resources by maintaining natural watercourses and requiring less infrastructure and flood management. Environmental benefits include maintaining a high water quality, preservation of woods and wetlands, and maintenance of animal habitat areas. Additionally, harmful effects of development — increased automotive emissions, rapid stormwater runoff, increased impervious surface cover on the soil which reduces ground water recharge, and similar impacts — are avoided in this area.

The Residential/ Natural Resources Preservation designation is planned throughout much of the area. In the south, there is a watershed that connects Lake Tyrone with Lake Shannon. In the southeast, there are significant steep slopes, natural bluffs and attractive viewsheds. A major topographic ridge, which is flanked on either side by wetlands and woodlands, extends from

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the southeast portion of the Township toward the northwest portion, intersecting U.S. 23 less than a mile north of the Center Road interchange.

The area south of the Hartland Road/White Lake Road intersection consists of the highest bluffs and most attractive viewsheds in the Township. North of the intersection there is an abundance of wetlands and woodlands surrounding several natural lakes including Goodfellow Lake, Jewel Lake, and Lake Urban. This area continues in a southeast direction toward Sullivan Lake along a watershed that is also surrounded by wetlands and woodlands. Immediately south of White Lake Road, bounded by Runyan Lake Road and Carmer Road, is Runyan Lake. This intensely developed lake is fed by streams and creeks from Goodfellow and Jewel Lakes as well as several other small creeks in the watershed area. Care should be taken to ensure all of the Township's water resources are protected from pollution and overuse, which can result when development occurs around the watersheds.

A large area extending from Center Road to the north and south has been designated as Agricultural/Residential. This area in Tyrone will continue to enjoy a rural lifestyle. There are several natural features in this area, and it is intended that the relatively large lots planned for this designation will encourage the preservation of such resources and allow a blend of agricultural uses with large lot residences.

The northeast portion of Township East is intended to consist of single family residences at a medium density. This density is consistent with the existing housing in the area, reflecting the influence of the City of Fenton to the north. The existing extractive use along Denton Road is master planned to be reclaimed for single family residential use.

Several Public/Quasi-Public uses are intended to continue into the future. These include the Gardner Cemetery near the intersection of Germany Road and Hartland Road, an electrical substation near the intersection of Center Hill and Mabley Hill Roads, and the ITC transmission line running east to west in the northern third of the Township.

ZONING PLAN

Section 33 of the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) calls for preparation of a zoning plan which "shall include an explanation of how the land use categories on the future land use map relate to districts on the zoning map."

In Tyrone Township, the Future Land Use Map reflects the community's desire to increase the amount of land dedicated to non-residential uses in those areas most suited for non-residential, while protecting the quality of life and character of the predominant rural open space in the rest of the Township. Most of the Township is zoned FR Farming Residential and RE Rural Estate Districts, reflecting a desire to allow development at a rural density of 2-3 acres per dwelling unit. The corresponding designations for these areas on the Future Land Use Map are Agricultural Residential and Residential/Natural Resources Preservation.

The Future Land Use Map calls for Low Density Single Family development (1.5 to 3 acres per dwelling unit) mostly in the central and southwest part of the Township. This designation is a transition between the Agricultural Residential and Residential/Natural Resources Preservation areas and higher density residential uses. The corresponding zoning designation for these areas is R-1 Single Family Residential District. Medium Density Single Family and Medium Density Single Family – Lake Side planned uses are concentrated in the north sector of the Township, near Fenton and Fenton Township, around Runyan Lake, Lake Tyrone and Lake Shannon, and as transitional density to buffer the higher intensity uses existing and planned along the west side of the U.S. 23 corridor.

The major discrepancy between the Future Land Use Map and the Zoning Map is along the west side of the U.S. 23 corridor. As discussed in detail in the Master Plan text, this area is the location of scattered, diverse commercial and industrial uses, has paved road access and interchange proximity, as well as sanitary sewer availability. The Township plans to proceed with the process of rezoning this land to the districts indicated by the Future Land Use Map (see Table 20).

Along Denton Hill Road are several other discrepancies between the Future Land Use Map and the existing zoning. The only land in the Township that is zoned RM-1 Multiple Family Residential is north of White Lake Road, on land that is master planned Residential/Natural Resources Preservation. In this same vicinity is a small parcel zoned OS Office Service, which has been used as both a school and professional office in the past. If and when these existing uses cease, the Township should consider rezoning the land to zoning districts consistent with the Future Land Use Map (See Table 20 below).

A variety of Public/Quasi Public locations are shown on the Future Land Use Map. The existing uses in these locations are generally consistent with the Plan, and the uses are permitted in the existing zoning districts.

The following table summarizes the relationship between Future Land Use Map classifications and Zoning Map districts.

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Table 20 Comparison of Future Land Use Classifications and Zoning Districts

Future Land Use Classification	Corresponding Zoning District(s)
Agricultural/Residential	FR Farming Residential District
Residential/Natural Resources Preservation	RE Rural Estate District, and El Extractive Industry
Low Density Single Family Detached Residential	R-1 Single Family Residential District
Medium Density Single Family Detached Residential	R-2 Single Family Residential District
Medium Density Single Family Detached Residential - Lakeside	LK-1 Lake Front Residential District
High Density Single Family Attached Residential	RM-1 Multiple Family Residential District
Manufactured Single Family Detached Residential	MHP Mobile Home Park District
Planned Commercial Services	PCS Planned Commercial Services District developed to replace existing B-1 Local Business District, B-2 Community Business District, and ES Expressway Service District
Planned Office	Currently OS Office Service District – new district to be developed
Planned Industrial Research Office	PIRO Planned Industrial Research Office District developed to replace existing M-1 Light Manufacturing, M-2 Heavy Industrial, and ROM Research-Office-Manufacturing,
Planned Commercial Industrial	None Yet – to be developed
Commercial Recreation	RE Rural Estate District
Public/Quasi Public	All districts except El Extractive Industrial



IMPLEMENTATION STRATEGIES

Implementation strategies are a key component of any community master plan. They determine how the plan's guidelines and recommendations become reality. A community's Master Plan should never be viewed as a finished product. As events or needs of the community demand, various adjustments or additions will be required. It is not anticipated that the Plan's major goals and objectives will require change. Rather, as the plan is interpreted and implemented, certain aspects will require periodic adjustment. Economic circumstances in the region, state and nation can also influence the viability of the Township's Master Plan. As circumstances change, the Master Plan must be reevaluated to assure the best interests of the community's residents and businesses are served.

Conclusions and recommendations have been included throughout the text of this plan. Those are summarized in the following paragraphs and, as appropriate, recommended solutions or other implementation methods are indicated.

ZONING

The Township Zoning Ordinance is a primary tool in achievement of the Plan's goals. Although the plan map is not a zoning map, it should be used as a guide to zoning amendment decisions, whether the amendments are initiated by the Township or by petitioners. The timing of changes to the zoning map is key to implementing the Plan. Further, the map's proposals should be viewed as flexible when considering the zoning of specific sites, especially if no pattern has yet been established. The Plan does not necessarily follow property lines and, with the exception of environmental concerns and existing and potential land use conflicts, whether a zoning pattern is established on the east or west side of a thoroughfare is often not the critical issue — the *pattern* of land utilization is the critical concern.

Depending on the rate of developmental change and requests for change to the zoning map, at least an annual review of the zoning map should be prepared. It is generally accepted practice to provide zoning on the basis of a five-year land use projection, whereas the Plan is a fifteen to twenty-year projection tool. The Township recognizes the obligation to maintain the Plan in accordance with Michigan statutory requirements.

The zoning ordinance should be reviewed to insure that the environmental, land use and circulation proposals of this plan are reflected in the ordinance, particularly under site plan review and special land use approval standards. The Township has recently created several new zoning districts that implement the planned development concept as recommended by this and the previous Master Plan. Other new districts are recommended by this Plan update – Planned Office, Planned Commercial Industrial, and provisions for the Country Store classification.

MANAGING GROWTH

Consistent with the overall philosophy described throughout this plan, the Township should make every effort to use infrastructure systems and other resource investments that have been previously committed before spending more funds on new facilities. When the Township decides to create new or expanded components of the infrastructure systems, those new facilities should be planned to provide service to those areas that are indicated for development in this Plan. Private developers should be discouraged from creating extensions of infrastructure systems or installing new systems to create development opportunities that are inconsistent with this Plan.

LAND DIVISION REGULATIONS

Like zoning, land division regulation, under the Michigan Land Division Act (P.A. 288 of 1967, as amended) is a tool for the implementation of this Plan. While zoning deals with land use on a site by site basis and activities in selected areas, land division standards are concerned with the process of dividing land and maintaining the quality of individual developments.

Subdivision standards, as permitted under the Land Division Act, are regulated in the Township by the Subdivision Control Ordinance. That Ordinance is intended to protect the needs of residents by providing both site design controls and improvement standards. Design controls provide for the arrangement and location of streets, configuration of lots, the provision of open space, and the sufficiency of easements for utility installations. Improvement standards ensure adequate roads and other physical elements.

Other land divisions are also regulated by the Land Division Act, and accordingly, the Township has adopted a Land Division Ordinance. The Land Division Ordinance provides for local authority and responsibility for the legal approval of land divisions. When land is divided outside of subdivisions, the Ordinance ensures the resulting lots are created consistent with the requirements of the Zoning Ordinance minimum requirements. It also requires lots to maintain minimum access standards to ensure the availability of public or private road access.

In 1982, Michigan condominium regulations were modified to permit the ownership of land by a co-owners association. Since that time, many developers have created site condominiums as a substitute for land subdivisions. Site condominium development can be attractive to the developer because the approval process can be much shorter in comparison to subdivision development. The Condominium Act requires condominiums to comply with local ordinances. The Township established standards to regulate site condominium development of land in the Township. Those regulations should be periodically reviewed and amended as appropriate to ensure the continued productive use of the standards.

SUPPORT AND COOPERATION WITH OTHER AGENCIES

The Township has established a record of working with other agencies — federal, state, county, and regional — in order to promote development or redevelopment of the community. That type of cooperation should be continued into the future. The Township's goals for a healthy stable community are consistent with the goals of the other agencies that also exist to improve the quality of life.

PUBLIC UNDERSTANDING AND SUPPORT

The necessity of citizen participation and understanding of the planning process and the Plan cannot be over emphasized. A carefully organized public education program is needed to identify public concerns and garner support for any community development plan. The lack of citizen understanding and support can seriously limit implementation of the planning proposals. The failure to support needed bond issues, failure to elect progressive officials, and litigation concerning taxation, special assessments, zoning, and public improvements are some of the results of public misunderstanding of long-range plans.

In order to organize public support most effectively, the Township should emphasize the reasons for the planning program, and encourage citizen participation in the adoption of the Plan and the continued planning process. Public education can be accomplished through an on-going informational program involving talks, newsletter articles, and preparation of simple summary statements on the plans for distribution. Participation by residents in various civic groups is evidence of community involvement.

CONTINUOUS PLANNING

A role of the Planning Commission is to provide planning recommendations to the Township Board. This planning function is a continuous process which does not terminate with the completion of this plan. Rural residential areas are in constant change and planning is an on-going process of identification, adjustment, and resolution of problems. In order to sustain the planning process and generate positive results, maintain momentum, and respond to change, the Plan should be reviewed annually and updated at least every five years.

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